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Water Resources Data for Oregon, Water Year 1977

(U.S.) Geological Survey, Portland, OR Water Resources Div

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Water Year 1977

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U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OR-77-1

Prepared in cooperation with the Oregon Water Resources
Department and with other agencies

CALENDAR FOR WATER YEAR 1977

1976

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16. Abstracts

Water resources data for the 1977 water year for Oregon consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality in wells and springs. This report contains discharge records for 283 gaging stations; stage only records for 10 gaging stations; stage and contents for 45 lakes and reservoirs; water quality for 79 gaging stations, and water levels for 97 observation wells. Also included are 157 crest-stage partial-record stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and co-operating State and Federal agencies in Oregon.

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for
Oregon
Water Year 1977

U.S. DEPARTMENT OF THE INTERIOR
MARCH 3, 1849

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OR-77-1

Prepared in cooperation with the Oregon Water Resources Department and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

H. William Menard, Director

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Portland, Oregon 97208

1978

PREFACE

This report was prepared by the U.S. Geological Survey in cooperation with the State of Oregon and with other agencies by personnel of the Oregon district of the Water Resources Division under the supervision of S. F. Kapustka, District Chief, and W. H. Robinson, Regional Hydrologist, Western Region.

This report is one of a series issued State by State under the general direction of J. S. Cragwall, Jr., Chief Hydrologist, and G. W. Whetstone, Assistant Chief Hydrologist for Scientific Publications and Data Management.

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LETTER AFTER STATION NAME DESIGNATES TYPE OF DATA:
(D) DISCHARGE, (E) ELEVATION OR CONTENTS, (C) CHEMICAL,
(B) BIOLOGICAL AND MICROBIOLOGICAL, (T) WATER TEMPERATURE,
(S) SEDIMENT, (J) TURBIDITY

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WATER RESOURCES DATA FOR OREGON, 1977

INTRODUCTION

Water resources data for the 1977 water year for Oregon consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water-levels and water quality of wells and springs. This report contains discharge records for 283 gaging stations; stage only records for 10 gaging stations; stage and contents for 45 lakes and reservoirs; water quality for 79 gaging stations, and water levels for 97 observation wells. Also included are data for 157 crest-stage partial-record stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Oregon.

Records of discharge of streams, and contents (or stage) of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through water year 1960, these water-supply papers were in an annual series and then in a multi-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Records of ground-water levels are published from 1935 to 1974 in a series of water-supply papers entitled, "Ground-Water Levels in the United States."

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a State-boundary basis. These official Survey reports carry an identification number consisting of the two letter State abbreviation, the last two digits of the water year, and volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report OR-77-1." Water-Data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia, 22151.

COOPERATION

The U.S. Geological Survey and organizations of the State of Oregon have had cooperative agreements for the systematic collection of surface-water records since 1905. Organizations that supplied data are acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreements with the Survey are:

Oregon Water Resources Department, James E. Sexson, Director.

Oregon Department of Fish and Wildlife, John R. Donaldson, Director.

Oregon State Highway Division, F.B. Klaboe, Administrator.

Coos, Douglas, Lane, and Multnomah Counties.

Cities of Coos Bay-North Bend, Corvallis, Eugene, Lakeside, McMinnville, Medford, Portland.

Columbia Region Association of Governments, Rogue Valley Council of Governments.

Burnt River Irrigation District.

Assistance in the form of funds or services was given by the Forest Service, Soil Conservation Service, U.S. Department of Agriculture; Corps of Engineers, U.S. Army; Bonneville Power Administration, Bureau of Reclamation, Fish and Wildlife Service, Environmental Protection Agency, Bureau of Land Management, and National Park Service, U.S. Department of the Interior; National Weather Service, U.S. Department of Commerce; Eugene Water & Electric Board; Pacific Power & Light Co.; Portland General Electric Co.; Idaho Power Co., Idaho; Cowlitz County & Clark County Public Utility Districts, Washington.

HYDROLOGIC CONDITIONS

As the 1977 water year began streamflow was below average during October. During November the mountain snowpack was almost non-existent and public and private utilities as well as others dependent on reservoir and snow storage for water supply and hydroelectric power were becoming increasingly concerned and streamflow was in the below-normal range as a result of below-normal precipitation.

During December, streamflow continued to decrease and remained in the below normal range.

In January, streamflow increased seasonally, except in the Willamette River basin, but remained below the normal range for the 4th consecutive month, reflecting the persistence of drought conditions. In the Umpqua River basin the monthly mean discharge at the index station near Elkton was the lowest in 72 years of record. In the Wilson River basin, the monthly mean discharge was the lowest in 47 years of record.

During February streamflow remained below the normal range for the 5th consecutive month reflecting the persistence of drought conditions in all parts of State. The impact of this unusually dry weather was felt by the ski industry, which applied for disaster relief in order to continue operations. At least two major ski areas had to suspend operation for lack of good snow base.

Precipitation for the month of March was above normal and some improvement in the ground-water levels and a noticeable increase in streamflow was seen.

During the period of April through August the severity of drought conditions continued. Several eastern Oregon counties were declared disaster areas. Livestock and crop losses were estimated at several million dollars.

Some relief from drought conditions in northwestern Oregon occurred with the increase in precipitation during September, but streamflow remained below the normal range at the end of the water year.

Geological Survey records indicate the 1977 drought was the most severe since streamflow records have been maintained in Oregon.

The recent drought resulted in record or near record minimum yearly runoff throughout Oregon during the 1977 Water Year as indicated by the following tables.

Eastern Oregon Index Stations

Gaging Sta.	Previous record low	1977
John Day River at Service Creek	465,000 ac-ft (1934)	448,000 ac-ft
Grande Ronde River at La Grande	102,100 ac-ft (1966)	104,700 ac-ft
Chewaucan River near Paisley	24,700 ac-ft (1931)	28,420 ac-ft

Western Oregon Index Stations

Gaging Sta.	Previous record low	1977
Wilson River at Tillamook	531,300 ac-ft (1941)	379,600 ac-ft
Umpqua River	2,280,000 ac-ft (1931)	1,680,000 ac-ft

In spite of the extreme severity of the drought record instantaneous or daily low flows appeared to be the exception rather than the rule throughout most of Oregon. One such exception was South Umpqua near Brockway where the flow dipped to 16 ft^3/s, the lowest flow ever recorded in the 42 years that river has been gaged. The previous instantaneous low was 25 ft^3/s in 1973.

The most dramatic flow figures resulting from the drought are the extremely low magnitude of the annual peaks in Western Oregon. For example the lowest annual peak flow previously recorded in 61 years on the Umpqua River near Elkton was 33,100 ft^3/s. The 1977 annual peak was 13,100 ft^3/s, much less than one-half the 33,100 ft^3/s recorded in 1915.

One anomaly that resulted from the drought was that the minimum and the maximum flow for the year occurred in the same month on some rivers in Oregon. For example on the Applegate River at Copper, the minimum flow for the year, 19 ft^3/s occurred on September 12-15 and the maximum flow for the year, 857 ft^3/s occurred September 28.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System of Units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial, or multicelled plants containing chlorophyll and lacking roots, stems, and leaves.

Bacteria are microscopic unicellular organisms, typically spherical, rod-like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that may be used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warmblooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within

48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Benthic organisms (invertebrates) are animals inhabiting the bottom of an aquatic environment. They include a number of different types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are frequently used as indicators of environmental quality because many have restricted mobility during their aquatic life phase, as well as a relatively long lifespan which allows for response to prevailing and changing water-quality conditions. Many benthic organisms inhabit specific types of environments which, if changed, result in changes in the composition of the benthic community.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, used for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the weight per unit area or volume of habitat.

Ash weight is the weight or amount of residue present after the residue from the dry weight determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash weight values of zooplankton and phytoplankton are expressed as g/m^3 (grams per cubic meter), and periphyton and benthic organisms in g/m^2 (grams per square meter).

Dry weight refers to the weight of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the weight remains unchanged. This weight represents the total organic matter, ash and sediment, in the sample. Dry weight values are expressed in the same units as ash weight.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Cfs-day (ft^3/s-day) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, or about 646,000 gallons, or 2,445 cubic meters. It represents a runoff of approximately 0.0372 inch from 1 square mile or 0.3468 millimeter from 1 square kilometer.

Chemical oxygen demand (COD) indicates the quantity of oxidizable compounds in water and varies with water composition(s), temperature, period of contact, and other factors.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Continuing water-quality record station is a specified site which meets one or all conditions listed.

1. Where chemical samples are collected daily or monthly for 10 or more months during the water year.
2. Where water-temperature records include observations taken one or more times daily.
3. Where sediment discharge records include those periods for which sediment loads are computed and are considered to be representative of the runoff for the water year.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Cubic foot per second (ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, total fluids) that passes a given point within a given period of time.

Mean discharge is the arithmetic average of discharge during a specific period.

Instantaneous discharge is the discharge at a given time.

Dissolved refers to the amount of a substance present in true chemical solution. In practice, however, the term includes all forms of the substance that will pass through a 0.45-micrometer membrane filter, and thus may include some very small (colloidal) suspended particles. Analyses are performed on filtered samples.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per liter (UG/L, ug/l) is a unit expressing the concentration of chemical constituents in solution as weight (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/l) is a unit for expressing the concentrations of chemical constituents in solution. Milligrams per liter represents the weight of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/l, and is based on the mass of sediment per liter of water-sediment mixture.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample volume, usually milliliters (ml) or liters (l).

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually millimeters (ml) or liters (l). Number of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation.
Silt..........	.004 - .062	Sedimentation.
Sand..........	.062 - 2.0	Sedimentation or sieve.
Gravel........	2.0 - 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent of total is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, weight, or volume.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While consisting primarily of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are primary food producers in the aquatic environment and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per ml of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per ml of sample.

Plankton is the floating (or weakly swimming) animal or plant life in a body of water consisting chiefly of minute plants (as diatoms and blue- green algae) and of minute animals (as protozoan, entomostracans, and various larvae).

Runoff in inches (IN.) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment discharge is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight, or by volume, that is discharged in a given time. It is computed by multiplying discharge times mg/l times 0.0027.

Total sediment discharge is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that is discharge during a given time (Colby and Hembree, 1955).

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/l).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating farmland.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimeter at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content in the water. Commonly, the amount of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream or from well to well, and it may even vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height and the volume of water flowing in a channel, expressed as volume per unit of time.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff." Streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial scheme beginning with kingdom and ending with species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata*, is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Emphemeroptera
Family	Ephemeridae
Genus	*Hexagenia*
Species	*Hexagenia limbata*

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the presence of a thermograph or a digital mechanism that records water temperature in digital format on punched paper tape.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the water year.

Tons per acre-foot indicates the dry weight of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour day.

Total (as used in tables of chemical analyses) refers to the amount of a substance that is present both in solution and in suspension. Analyses are performed on representative samples of water-suspended sediment mixtures.

Turbidity of a sample is the reduction of transparency due to the presence of particulate matter. In this report it is expressed in Jackson turbidity units (JTU).

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the year after thorough mixing in the reservoir.

WRD is used as an abbreviation for "Water-Resources Data" in the summary "REVISIONS" paragraph to refer to previously published State annual hydrologic data reports.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQUAN) is an accounting network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated in the network design. Areal configuration of the network is based on river-basin accounting units designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of water-quality conditions nationwide on a year-to-year basis and (2) to detect and assess long-term changes in stream quality.

Pesticide program is a network of regularly sampled water-quality stations where additional monthly samples are collected to determine the concentration and distribution of pesticides in streams whose waters are used for irrigation or in streams in areas where potential contamination could result from the application of the commonly used insecticides and herbicides.

Pesticides are chemical compounds used to control the growth of undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Since the first application of DDT as an insecticide in the early 1930's, there have been almost 60,000 pesticide formulations registered, each containing at least one of the approximately 800 different basic pesticide compounds. The United States annually produces about 1 billion pounds. Chlorinated hydrocarbon pesticides are still commonly used in many areas of the country, although efforts are being made to replace many of them with more specific, fast-acting, and easily degradable compounds.

Radiochemical program is a network of regularly sampled water-quality stations where additional samples are collected monthly or twice a year (at high and low flow) to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Radioisotopes are isotope forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus. For example: Ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, with the natural mixture having atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron (Rose, 1966). There are 275 isotopes of the 81 stable elements in addition to more than 800 radioactive isotopes.

Radioisotopes that are determined in this program are natural uranium in ug/l (micrograms per liter), radium as radium-226 in PC/L (pCi/l, picocuries per liter), gross beta radiation as equivalent strontium/yttrium-90 or cesium-137 in PC/L, and gross alpha radiation as micrograms of uranium equivalent per liter (ug/l). Gross alpha and beta radioactivity associated with the fine-grained (silt- and clay-sized) sediments in the samples are also determined.

A picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.2 dpm (disintegrations per minute).

DOWNSTREAM ORDER AND STATION NUMBER

Stations are listed in downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all main-stream stations are listed before the first main-stream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of stations in the front of this report, the rank of tributaries is indicated by indention, each indention representing one rank.

As an added means of identification, each water-quality station, gaging station, and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record and continuous-record stations; therefore, the station number for a partial-record station indicated downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station. Gaps are left in the numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 14105700 which appears just to the left of the station name, includes the 2-digit part number "14" plus the 6-digit downstream order number "105700." In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and Computation of Data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals; and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder which gives a continuous graph of the fluctuations (for digital recorders, a tape punched at 15-, 30-, or 60-minute intervals) or from direct readings on a nonrecording gage. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks on the measurement of stream discharge. Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods.

For a stream-gaging station, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves defined by discharge measurements. If extensions to the rating curves are necessary to define the extremes of discharge, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), velocity-area studies, and logarithmic plotting. The application of the daily mean gage heights to the rating table gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other causes. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in determining discharge. Information required for determining the slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in determining discharge.

At some stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. Discharge over spillways is computed from a stage-discharge relation curve defined by discharge measurements. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the resvoir are necessary to define new stage-capacity curves. During the period between reservoir surveys, the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, good record at adjoining stations, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated on the basis of operator's log, good record at adjoining stations, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of hydrologic data. For gaging stations on streams or canals, a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs, a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gage, general remarks, average discharge, and extremes of published records. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published, along with the current records, in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge are affected by the revision, that fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised: "(m)" that only the instantaneous minimum was revised; and "(P)" that only the peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given.

The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE". In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the topographic Division of the Geological Survey, unless otherwise qualified.

Information pertaining to the accuracy of the discharge records, and to conditions that affect the natural flow at the gaging station, is given under "REMARKS"; for reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is also given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given: First, the extremes for the period of record; second, information available outside the period of record ; and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a non-recording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR: if they are all independent peaks (including the maximum for the year) above the selected base, with the time of occurrence and corresponding gage heights, are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these staiton are published in a separate paragraph following the table of peaks.

Skeleton rating tables are published, immediately following EXTREMES, for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharges are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but it is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of Data

The accuracy of discharge data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges is within 5 percent, "good" within 10 percent, and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft^3/s, to tenths between 1.0 and 10 ft^3/s, to whole numbers between 10 and 1,000 ft^3/s, and to three significant figures greater than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumptive use, regulation, evaporation, or other factors. For such stations, discharge in cubic feet per second per square mile and runoff in inches are not published unless satisfactory adjustments can be made for such effects. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or unadjusted losses (consumptive use, evaporation, seepage, etc.) are large in comparison with the observed discharge.

Other Data Available

Monthly records for several ungaged sites are given in a separate section following the gaged sites. The accuracy of records for ungaged sites is generally lower than that for gaged sites, depending on the precision of the computation method and the accuracy of data used in the computations.

For most gaging stations, unpublished, detailed information, on file in the district office, includes discharge measurements, gage-height records, and rating tables. Many gaging-station records in Oregon through 1967 have been analyzed to determine several statistical summaries: (1) the number of days in each year that the daily discharge was between selected limits (duration tables), (2) the lowest mean discharge for selected numbers of consecutive days in each year, and (3) the highest mean discharge for selected numbers of consecutive days in each year.

Records of Discharge Collected by Agencies Other than the Geological Survey

Other Federal and State agencies have collected discharge data at other sites in Oregon during the current water year. Although these records have not been published by the U.S. Geological Survey, the Office of Water Data Coordination, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA., 22092, maintains an index of these sites and will furnish information about them.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Computation of Data

Records of surface water quality are listed in downstream order by ation number. The data generally are collected at or near gaging stations, nd are reported immediately following other records for those stations. ater-quality data for most ungaged sites are listed with the records or other surface-water stations, in regular downstream order. The exceptions are the less detailed data for several ungaged sites, which are grouped separately in the section titled "Analyses of samples collected at water-quality partial-record stations."

The descriptive headings for detailed records of surface-water quality give periods of record for the various categories of data, extremes for certain pertinent data, and general remarks. For less detailed records, only the overall period of record is listed.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey publications on Techniques of Water-Resources Investigations, which are listed on page 28.

One stream-water sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample for the accurate determination of mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. Where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the published records consist of daily maximum, minimum, and mean values. More detailed records may be obtained from the district office.

Since October 1967, the U.S. Geological Survey has used the metric system for reporting data on chemical constituents and concentrations of suspended sediment. Chemical constituents are now reported in milligrams per liter (mg/l) except for certain minor elements that are reported in micrograms per liter (ug/l). Suspended sediment is reported in milligrams per liter and water temperatures in degrees Celsius (°C). In water with a density of 1,000 g/ml, values in parts per million should be multiplied by the density to convert to milligrams per liter. To convert temperature in degrees Celsius to degrees Fahrenheit, see table 1 on page 23.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter. (See "Definitions of terms," page 5.)

Table 1.--Degrees Celsius (°C) to degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

*°C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32.

Solutes

The methods of collecting and analyzing water samples to determine the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970). If the mixture of solutes throughout the stream cross section is homogeneous, one sample can adequately define the water quality at a given time. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge depending on the source of material and the turbulence and mixing of the stream. Some sites must be sampled at several vertical intervals across the channel to determine the solute load accurately.

At chemical-quality stations where monitors are installed, the records consist of daily maximum, minimum, and mean values for each constituent measured. More detailed records (hourly values) may be obtained from the district office of the U.S. Geological Survey at the address given on page IV of this report.

Water temperature

Water temperatures are measured at most of the water-quality stations. The water temperatures for daily stations are taken when a sample is collected, at about the same time each day. Large streams have small diurnal temperature changes; shallow streams may have a daily range of several degrees and may closely follow the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where continuously recording thermographs are used maximum and minimum temperatures for each day are published.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section or a single sample at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or concentration, samples may have been collected twice daily or, in some instances, hourly. The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment discharges observed for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions at the times of observations only, such data are useful in establishing seasonal relations between quality and streamflow for predicting long-term sediment-discharge characteristics of the stream.

In addition to records of the quantities of suspended sediment, records of periodic measurements of particle-size distribution of suspended sediment and bed material are included.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of Data

The observation-well program in Oregon, begun in 1928, was continued through 1977 in cooperation with the Oregon Water Resources Department. During the period 1962-65, the number of wells in the observation-well network was increased from 102 to about 840. Observation wells in the program are part of a basic national network for providing a historical record of water-level changes in selected aquifers in the nation. Most of the wells are measured periodically by personnel of the Oregon Water Resources Department. Measurements are made in most of the wells three or four times a year to obtain records of the effects of pumping and seasonal changes in ground-water storage. The measurements are generally made in winter and spring before pumping begins, during the pumping season, and at the end of the pumping season. Water-level measurements in 97 representative wells in the Oregon observation-well network are included in this report; the locations of these wells are showin in figure .

Each well is identified by means of a 15-digit number that is based on the grid system of latitude and longitude. The first six digits represent degrees, minutes, and seconds of north latitude; the next seven digits are degrees, minutes, and seconds of west longitude; and the last two numbers are sequential numbers assigned in the order the wells are inventoried in a 1-second quadrangle. Each well is also identified by a local well number that provides continuity with older reports and local needs.

Well Descriptions

For each well, the well description includes, if available, the following information: Latitude-longitude number, local well number, owner, method of construction, use of well, aquifer name or lithology, diameter of casing, depth of well, depth interval perforated or screened, altitude of land surface datum (lsd) above mean sea level (msl), and a description of the measuring point.

The depth of the well at the time it was inventoried is given in the well description, and any subsequent changes also are described. Well diameter reported is the inside of the innermost well casing at land surface.

Water Levels

Measurements are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Water-level measurements in this report are given in feet below land-surface datum unless otherwise indicated. Those water levels that are above land-surface datum are preceded by a plus (+) sign. Land-surface datum is a datum plane that is approximately at land surface at each well. The height of the measuring point (MP) above or below land-surface datum is given in each well description.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determing the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Most measurements are reported to a hundredth of a foot; others are reported only to a tenth of a foot or a larger unit. Water levels determined by air line are less accurate than those measured by other methods; therefore, these water levels are reported only to the nearest half a foot.

The highest and lowest water levels measured at each well for the period of record are reported. These are intended to represent static water levels, but the lowest levels reported for some wells may reflect recent pumping.

Hydrographs

Hydrographs show fluctuations of water levels during 1956-77 in 15 selected observation wells. Generally, water levels are highest during the wet winter and spring months and lowest during the dry summer and autumn months. Water levels are shown on the hydrographs in feet below the land surface at the well.

Well-Numbering System

Local designations of wells discussed in this report are based on the official system for the rectangular subdivision of public lands, referenced to the Willamette base line and meridian. The number indicates the location of the well by township, range, section, and its position within the section. A graphic illustration of this method of well numbering is shown on page 27. The numbers indicate the township, the range, and the section, respectively, in which the well is located.

The letters following the section number locate the well within the section. The first letter donotes the quarter section (160 acres); the second, the quarter-quarter section (40 acres); and the third, the quarter-quarter-quarter section (10 acres). Where two or more wells are in the same 10-acre subdivision, serial numbers are added after the third letter. The section number and three-letter position indicator are shown on the location map adjacent to the well symbol. Within a county, the wells are arranged in sequental order based on increasing numbers for township and range and are shown on the map (fig. 5) by section number. For example well 27S/18E-21aaa is in the NE¼NE¼NE¼ sec.21, T.27 S., R.18 E., in Lake County, and will be labeled as 21AAA.

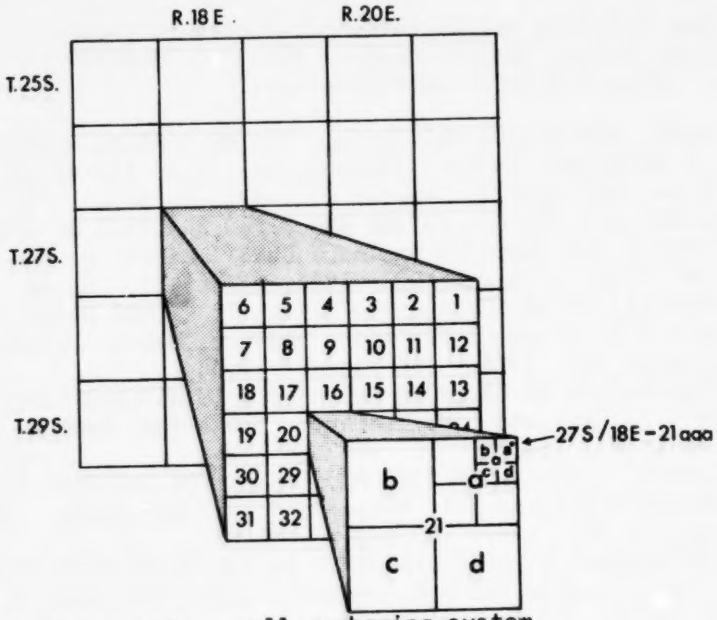
R.18E.
R.20E.
T.25S.
T.27S.
T.29S.
6 5 4 3 2 1
7 8 9 10 11 12
18 17 16 15 14 13
19 20
30 29
31 32
b a c d
21
27S/18E-21aaa

Figure 1.--Local identifier well-numbering system.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is futher divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office). Prices are effective January 1978 but are subject to change.

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. WATER TEMPERATURE-INFLUENTIAL FACTORS, FIELD MEASUREMENT, AND DATA PRESENTATION, by H.H. Stevens, Jr., J.F. Ficke, and G.F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages. $1.60.

1-D2. GUIDELINES FOR COLLECTION AND FIELD ANALYSIS OF GROUND-WATER SAMPLES FOR SELECTED UNSTABLE CONSTITUENTS, by W.W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages. $0.85.

2-D1. APPLICATION OF SURFACE GEOPHYSICS TO GROUND-WATER INVESTIGATIONS, by A.A.R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages. $1.90.

2-E1. APPLICATION OF BOREHOLE GEOPHYSICS TO WATER-RESOURCES INVESTIGATIONS, by W.S. Keys and L.M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages. $1.75.

3-A1. GENERAL FIELD AND OFFICE PROCEDURES FOR INDIRECT DISCHARGE MEASUREMENTS, by M.A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages. $1.00.

3-A2. MEASUREMENT OF PEAK DISCHARGE BY THE SLOPE-AREA METHOD, by Tate Dalrymple and M.A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages. $0.35.

3-A3. MEASUREMENT OF PEAK DISCHARGE AT CULVERTS BY INDIRECT METHODS, by G.L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages. $0.40.

3-A4. MEASUREMENT OF PEAK DISCHARGE AT WIDTH CONTRACTIONS BY INDIRECT METHODS, by H.F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages. $1.00.

3-A5. MEASUREMENT OF PEAK DISCHARGE AT DAMS BY INDIRECT METHODS, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages. $0.35.

3-A6. GENERAL PROCEDURE FOR GAGING STREAMS, by R.W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6, 1968. 13 pages. $1.00.

3-A7. STAGE MEASUREMENTS AT GAGING STATIONS, by T.J. Buchanan and W.P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages. $1.40.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

3-A8. DISCHARGE MEASUREMENTS AT GAGING STATIONS, by T.J. Buchanan and W.P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages. $1.25.

3-A11. MEASUREMENT OF DISCHARGE BY MOVING-BOAT METHOD, by G.F. Smoot and C.E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages. $1.20.

3-A12. FLUOROMETRIC PROCEDURES FOR DYE TRACING, by J.F. Wilson Jr.: USGS--TWRI Book 3, Chapter A12. 1968. 31 pages. $0.35. Not currently available.

3-B1. AQUIFER-TEST DESIGN, OBSERVATION, AND DATA ANALYSIS, by R.W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages. $0.70.

3-B2. INTRODUCTION TO GROUND-WATER HYDRAULICS, A PROGRAMED TEXT FOR SELF-INSTRUCTION, by G.D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages. $2.50.

3-C1. FLUVIAL SEDIMENT CONCEPTS, by H.P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages. $0.65.

3-C2. FIELD METHODS FOR MEASUREMENT OF FLUVIAL SEDIMENT, by H.P. Guy and V.W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages. $2.50.

3-C3. COMPUTATION OF FLUVIAL-SEDIMENT DISCHARGE, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages. $2.10.

4-A1. SOME STATISTICAL TOOLS IN HYDROLOGY, by H.C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages. $1.60.

4-A2. FREQUENCY CURVES, by H.C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages. $0.35.

4-B1. LOW-FLOW INVESTIGATIONS, by H.C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages. $0.65.

4-B2. STORAGE ANALYSES FOR WATER SUPPLY, by H.C. Riggs and C.H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages. $0.75.

4-B3. REGIONAL ANALYSES OF STREAMFLOW CHARACTERISTICS, by H.C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages. $0.65.

4-D1. COMPUTATION OF RATE AND VOLUME OF STREAM DEPLETION BY WELLS, by C.T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages. $1.10.

5-A1. METHODS FOR COLLECTION AND ANALYSIS OF WATER SAMPLES FOR DISSOLVED MINERALS AND GASES, by Eugene Brown, M.W. Skougstad, and M.J. Fishman: USGS--TWRI Book 5, Chapter A1. 1970. 160 pages. $2.40.

5-A2. DETERMINATION OF MINOR ELEMENTS IN WATER BY EMMISSION SPECTROSCOPY, by P.R. Barnett and E.C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages. $0.80.

5-A3. METHODS FOR ANALYSIS OF ORGANIC SUBSTANCES IN WATER, by D.F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages. $0.90.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

5-A4.* METHODS FOR COLLECTION AND ANALYSIS OF AQUATIC BIOLOGICAL AND MICROBIOLOGICAL SAMPLES, edited by P.E. Greeson, T.A. Ehlke, G.A. Irwin, B.W. Lium, and K.V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages. $20.00.

5-A5.* METHODS FOR DETERMINATION OF RADIOACTIVE SUBSTANCES IN WATER AND FLUVIAL SEDIMENTS, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages. $16.00.

5-C1. LABORATORY THEORY AND METHODS FOR SEDIMENT ANALYSIS, by H.P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages. $2.10.

7-C1. FINITE DIFFERENCE MODEL FOR AQUIFER SIMULATION IN TWO DIMENSIONS WITH RESULTS OF NUMERICAL EXPERIMENTS, by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages. $2.30.

8-A1. METHODS OF MEASURING WATER LEVELS IN DEEP WELL, By M.S. Garber and F.C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages. $0.70.

8-B2. CALIBRATION AND MAINTENANCE OF VERTICAL-AXIS TYPE CURRENT METERS, by G.F. Smoot and C.E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages. $1.10.

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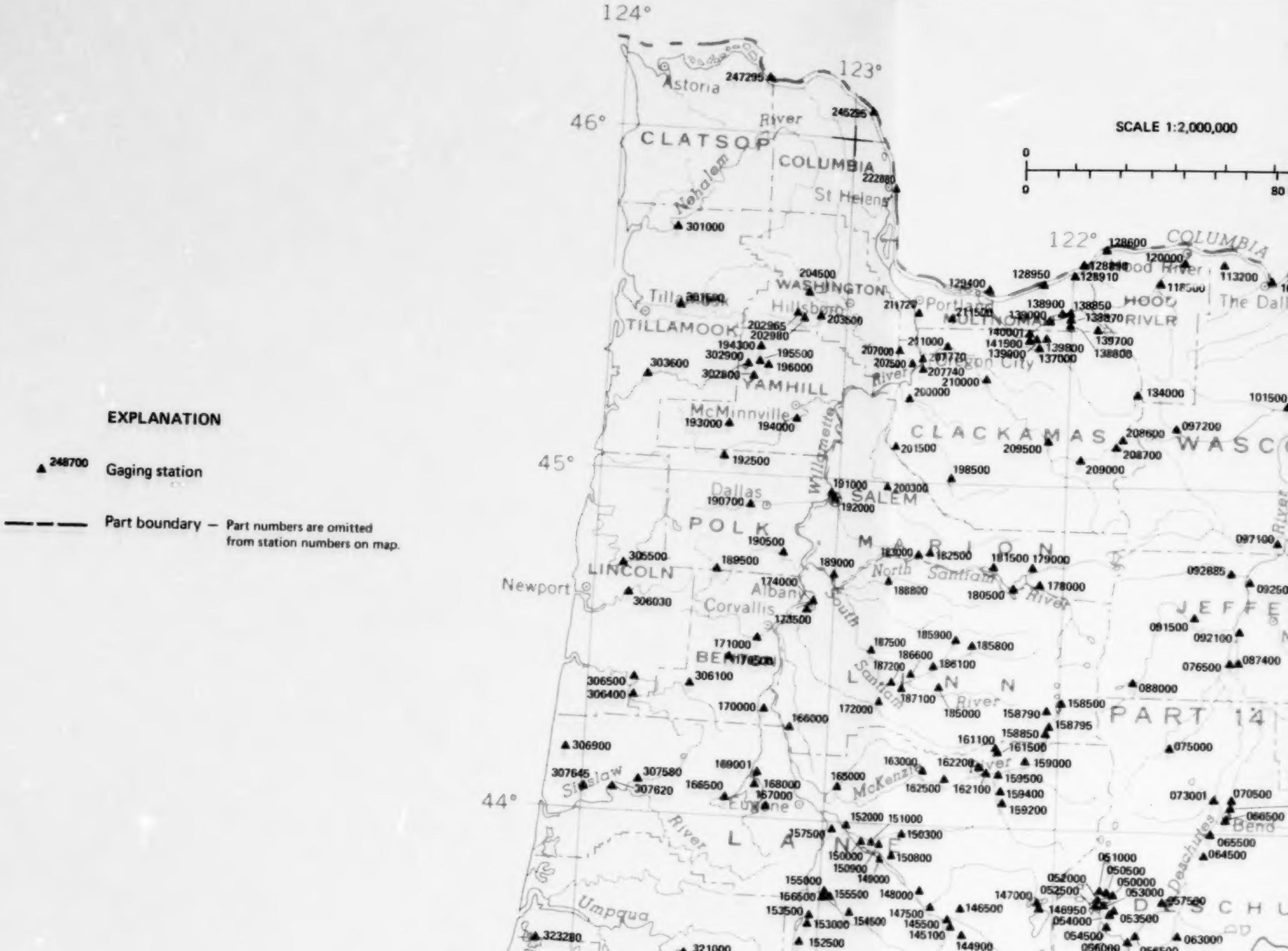
EXPLANATION
248700 Gaging station
Part boundary — Part numbers are omitted from station numbers on map.
SCALE 1:2,000,000
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124°
123°
122°
46°
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44°
43°
42°
Astoria
CLATSOP
COLUMBIA
St Helens
River
Nehalem
TILLAMOOK
Tillamook
WASHINGTON
Hillsboro
Portland
MULTNOMAH
Oregon City
YAMHILL
McMinnville
CLACKAMAS
WASCO
HOOD RIVER
Hood River
The Dalles
COLUMBIA
SALEM
Dallas
POLK
MARION
LINCOLN
Newport
Albany
Corvallis
BENTON
North Santiam River
South Santiam
LINN
Willamette
JEFFERSON
PART 14
McKenzie River
Eugene
Siuslaw
LANE
Bend
Deschutes
DESCHUTES
Umpqua
River
Coquille
COOS
DOUGLAS
Roseburg
Crater Lake
KLAMATH
Williamson R
Sprague River
Upper Klamath Lake
Klamath Falls
Lost River
PART
Rogue
River
CURRY
Gold Beach
JOSEPHINE
Grants Pass
JACKSON
Medford
247295
246296
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301500
303600
204500
202965
202980
203500
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195500
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113200
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501000
359000
361500
341500
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357500
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377100
366000
375100
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350000
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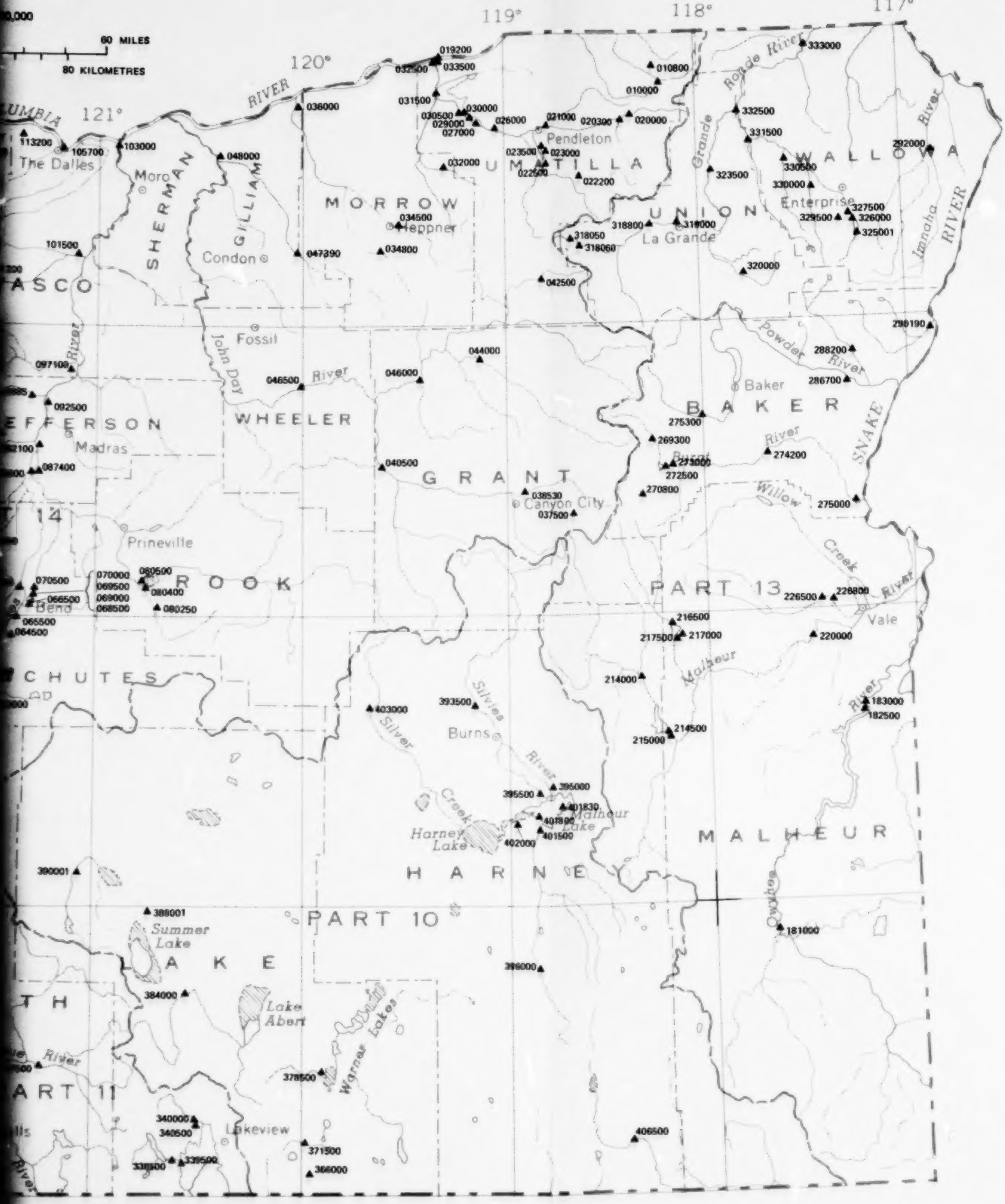
353000
507001
506000
507501
509500
375500
372500
362000
510700

Figure 2.--Map of Oregon showin


0,000
60 MILES
80 KILOMETRES
119°
118°
117°
120°
121°
LUMBIA
RIVER
The Dalles
Moro
SHERMAN
GILLIAM
MORROW
Heppner
Condon
UMATILLA
Pendleton
UNION
La Grande
WALLOWA
Enterprise
Grande Ronde River
Imnaha
RIVER
River
WASCO
Fossil
John Day
River
WHEELER
JEFFERSON
Madras
GRANT
Canyon City
Baker
BAKER
Powder River
Burnt River
SNAKE
Willow Creek
PART 14
Prineville
CROOK
Bend
PART 13
Vale
River
Malheur
DESCHUTES
Burns
Silvies River
Silver Creek
Harney Lake
Malheur Lake
MALHEUR
HARNEY
PART 10
Owyhee
Summer Lake
LAKE
Lake Abert
Warner Lakes
KLAMATH
River
PART 11
Lakeview
Falls
019200
032500
033500
036000
031500
030000
030500
029000
027000
026000
021000
020300
020000
010800
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069500
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068500
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226500
226800
216500
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214000
183000
182500
214500
215000
403000
393500
395500
395000
401830
401800
401500
402000
390001
388001
181000
396000
384000
378500
340000
340500
339500
338500
371500
366000
406500

showing locations of active gaging stations.

EXPLANATION

▼1910 Active chemical-measurement site

▼1660 Active temperature-measurement site

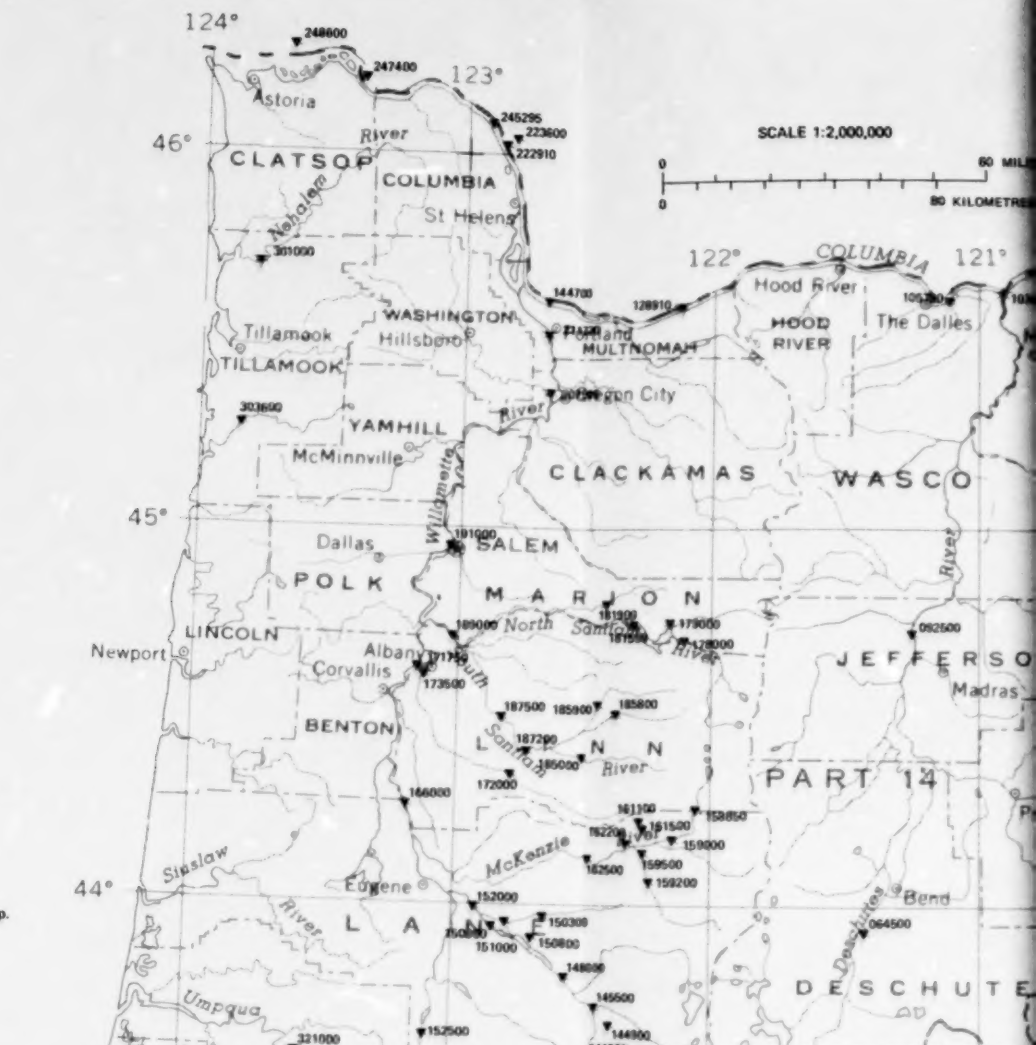
▼3065 Active sediment-measurement site

▼3315 Active biological-measurement site

▼1286 Active microbiological-measurement site

▼3315 Combination of all of the above

— — — Part boundary — Part numbers are omitted from station numbers on map.


124°
123°
122°
121°
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44°
43°
42°
SCALE 1:2,000,000
0
0
80 KILOMETRES
COLUMBIA
River
Astoria
CLATSOP
COLUMBIA
St Helens
Nehalem
WASHINGTON
Hillsboro
Tillamook
TILLAMOOK
Portland
MULTNOMAH
Hood River
HOOD RIVER
The Dalles
Oregon City
River
YAMHILL
McMinnville
CLACKAMAS
WASCO
Willamette
River
Dallas
SALEM
POLK
MARION
North
Santiam
River
LINCOLN
Newport
Albany
Corvallis
South
Santiam
BENTON
LINN
River
JEFFERSON
Madras
PART 14
Siuslaw
McKenzie
River
Eugene
LANE
River
Deschutes
Bend
DESCHUTES
Umpqua
River
Coquille
Roseburg
COOS
DOUGLAS
Crater Lake
Rogue
River
CURRY
Gold Beach
Grants Pass
JOSEPHINE
JACKSON
Medford
KLAMATH
Williamson R
Sprague River
Upper Klamath Lake
PART 11
Klamath Falls
Lost River
248600
247400
245295
223600
222910
301000
144700
128910
303600
191000
181900
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338000
337870
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337500
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359000
361500
366000
362000

Figure 3.--Map of Oregon showing sites

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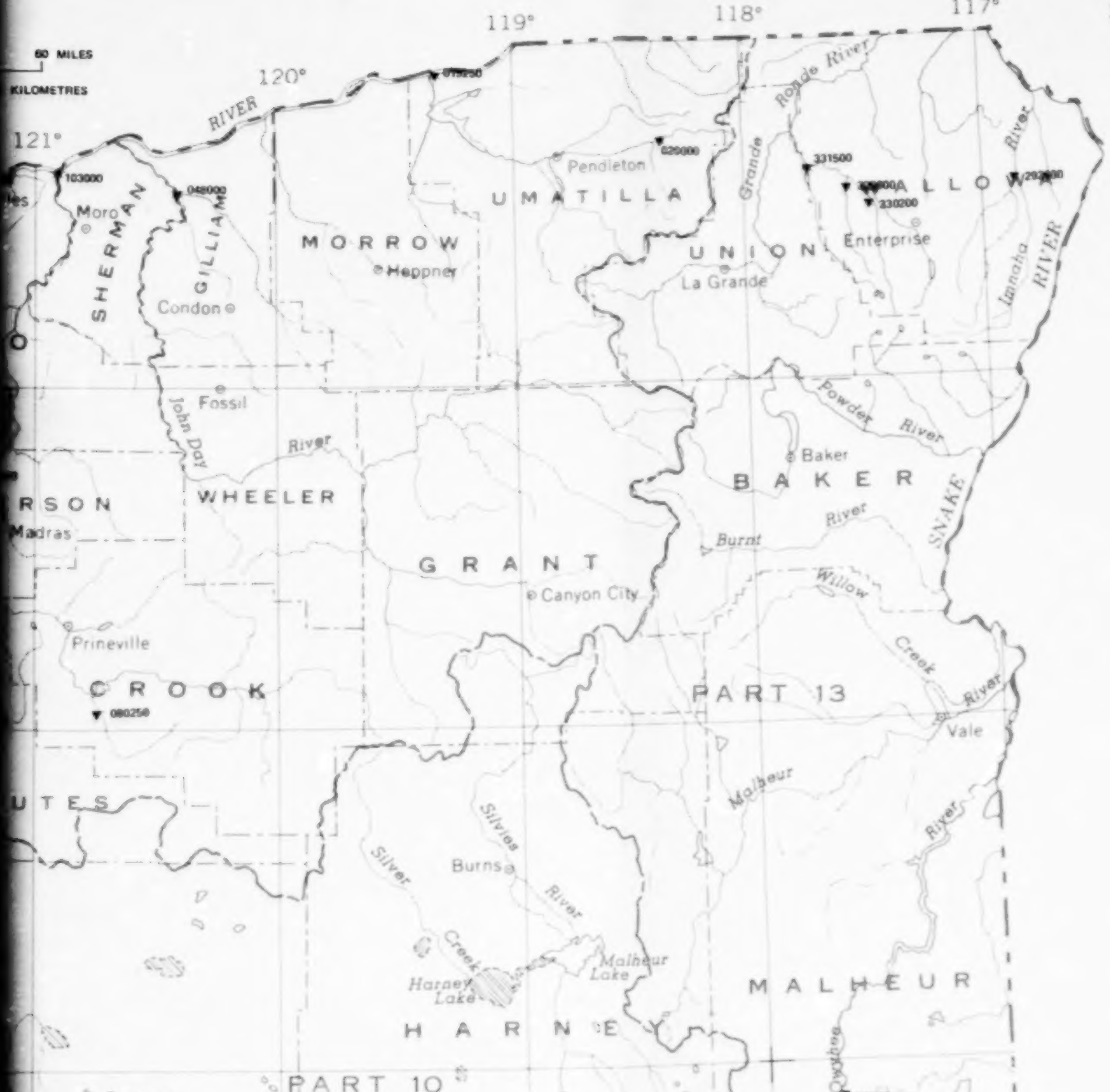
60 MILES
KILOMETRES
121°
120°
119°
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117°
RIVER
018250
020000
103000
048000
331500
230200
Pendleton
UMATILLA
Grande Ronde River
River
ALLOW
Enterprise
UNION
La Grande
Imnaha
RIVER
MORROW
Heppner
SHERMAN
GILLIAM
Moro
Condon
Fossil
John Day
River
WHEELER
RSON
Madras
Powder
River
Baker
BAKER
SNAKE
Burnt
River
GRANT
Canyon City
Willow
Creek
Prineville
CROOK
080250
PART 13
River
Vale
Malheur
UTES
Silvies
River
Silver
Creek
Burns
Harney Lake
Malheur Lake
MALHEUR
River
HARNEY
PART 10
Owyhee
181000
396000
Summer Lake
AKE
Lake Abert
Warner Lakes
11
Lakeview

ites where water-quality data were obtained.

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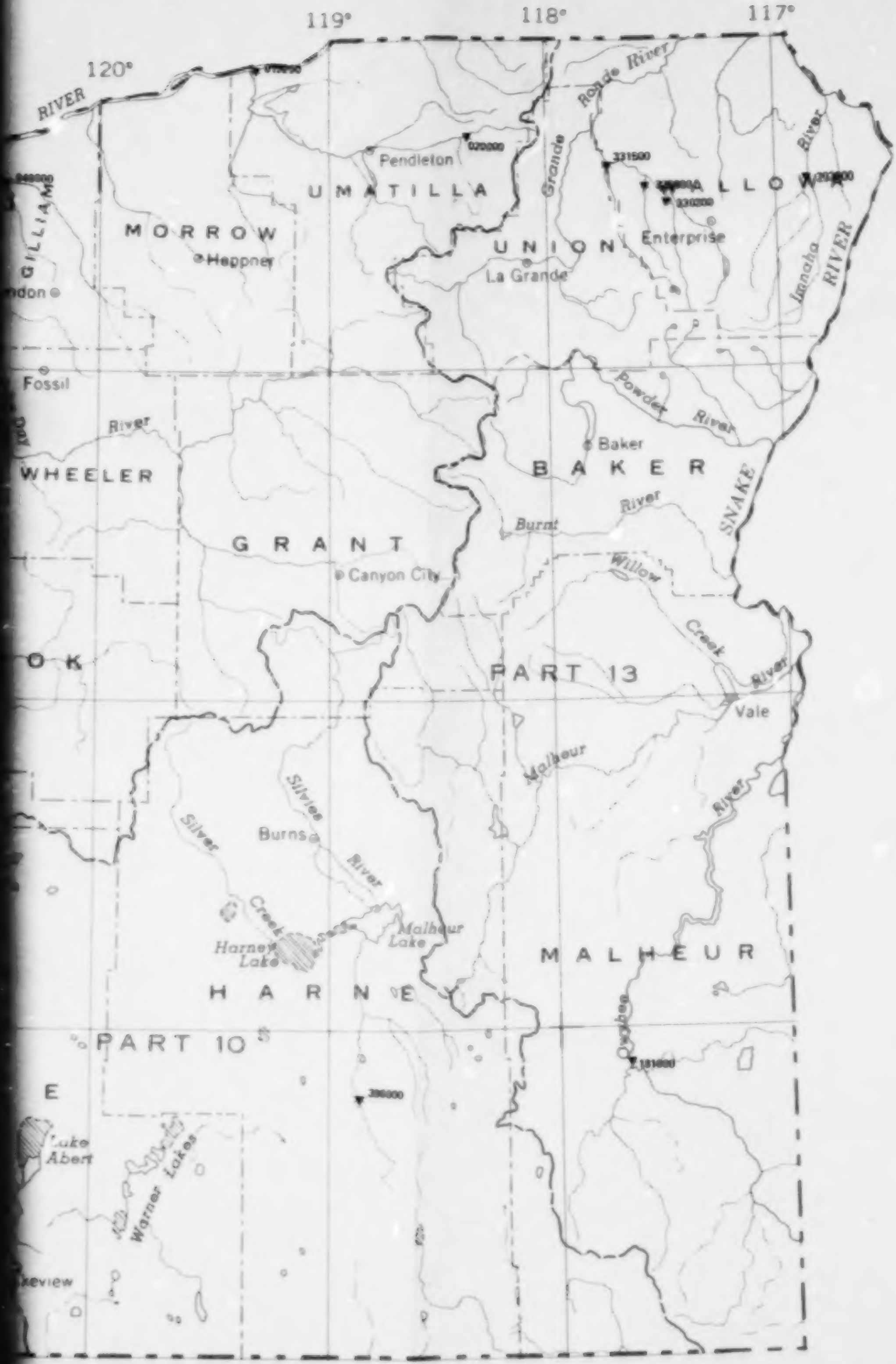
119°
118°
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RIVER
Pendleton
020000
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UMATILLA
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La Grande
Enterprise
Grande
Ronde River
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Imnaha
RIVER
Fossil
Powder
River
Baker
BAKER
River
WHEELER
Burnt
River
SNAKE
GRANT
Canyon City
Willow
Creek
OK
PART 13
River
Vale
Malheur
River
Silvies
Silver
Burns
River
Creek
Malheur
Lake
Harney
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MALHEUR
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386000
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Warner
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keview

r-quality data were obtained.

3P

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THE GREAT BASIN

WARNER LAKES BASIN

10366000 TWENTYMILE CREEK NEAR ADEL, OR

LOCATION.--Lat 42°04'20", long 119°57'42", in SW¼NW¼ sec.25, T.40 S., R.23 E., Lake County, Hydrologic Unit 17120007, on left bank 1.5 mi (2.4 km) downstream from Twelvemile Creek and 8 mi (13 km) southwest of Adel.

DRAINAGE AREA.--194 mi^2 (502 km^2), including 46 mi^2 (119 km^2) in Cowhead Lake area.

PERIOD OF RECORD.--March 1910 to July 1916, December 1917 to September 1919, and March 1921 to June 1922 (published as "near Warner Lake"), September 1940 to November 1944, March 1945 to current year.

REVISED RECORDS.--WSP 1090: 1945. WSP 1514: 1951-53, 1954(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,560.83 ft (1,390.141 m) above mean sea level. Prior to Sept. 21, 1940, nonrecording gage or water-stage recorder at sites within 1 mi (2 km) downstream at various datums. Sept. 21, 1940, to Nov. 30, 1944, water-stage recorder at site 1.8 mi (2.9 km) upstream at different datums. Mar. 12, 1945, to June 28, 1952, water-stage recorder at site 70 ft (21 m) upstream at datum 0.88 ft (0.268 m) higher.

REMARKS.--Records good except those for winter periods, which are fair. Some regulation by pumpage from Cowhead Lake. Diversions in Oregon for irrigation above station; considerable diversions for irrigation in Cowhead Lake area in California.

AVERAGE DISCHARGE.--42 years (water years 1911-15, 1919, 1941-44, 1946-77), 51.3 ft^3/s (1.453 m^3/s), 37,170 acre-ft/yr (45.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,670 ft^3/s (104 m^3/s) Dec. 23, 1964, gage height, 16.1 ft (4.91 m), from rating curve extended above 920 ft^3/s (26.1 m^3/s) on basis of contracted-opening measurement of 3,260 ft^3/s (92.3 m^3/s); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 92 ft^3/s (2.61 m^3/s) May 12, gage height, 2.84 ft (0.866 m), no peak above base of 510 ft^3/s (14.4 m^3/s); minimum daily, 0.45 ft^3/s (0.013 m^3/s) Feb. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	4.5	4.8	2.6	.53	3.7	5.8	5.5	5.3	2.6	1.8	2.1
2	4.1	4.5	4.8	2.8	.45	3.6	6.2	4.9	5.7	4.1	1.5	1.8
3	4.1	4.3	3.5	3.0	.50	4.1	5.8	5.1	4.9	4.1	2.2	1.5
4	4.1	4.2	5.6	2.9	.53	4.2	6.1	6.4	4.7	3.5	2.2	1.5
5	4.1	4.5	4.8	2.6	.82	4.4	7.3	6.1	4.5	3.0	2.2	1.5
6	4.1	4.5	4.8	2.4	1.0	4.8	8.2	6.6	4.4	3.0	2.6	1.5
7	4.1	4.3	3.5	2.2	1.0	5.0	8.2	6.4	5.4	3.0	2.6	1.5
8	4.1	4.2	4.8	2.0	1.5	5.3	9.5	6.4	6.6	3.0	2.6	1.5
9	4.1	5.0	5.6	2.2	1.5	11	12	7.8	5.8	2.6	2.6	1.6
10	4.1	5.5	3.5	2.4	1.8	7.6	8.7	6.3	4.9	2.6	2.2	1.7
11	4.1	5.5	3.0	2.6	1.8	5.8	6.8	6.4	3.9	2.2	1.8	1.6
12	4.1	5.6	3.5	2.9	2.2	5.9	6.1	46	2.7	2.2	1.5	1.7
13	4.1	4.8	2.6	2.7	2.2	4.3	5.8	19	2.4	2.2	1.8	1.6
14	3.5	6.8	3.0	2.5	3.0	4.5	6.0	11	2.4	2.2	1.8	1.7
15	3.5	6.7	3.0	2.3	2.6	5.1	5.2	7.2	2.6	2.2	1.8	1.7
16	3.5	6.0	2.6	2.3	3.5	4.6	5.6	5.1	2.1	1.5	1.8	3.1
17	4.1	6.1	1.8	2.4	3.5	4.7	5.7	7.8	2.7	1.5	1.8	4.0
18	3.5	5.7	1.7	2.6	4.1	4.5	5.3	21	3.6	1.5	1.8	3.5
19	4.1	5.2	1.7	2.9	4.1	5.4	4.8	16	5.4	1.8	2.2	3.3
20	4.1	5.1	1.7	3.2	4.8	6.3	4.4	9.3	7.4	1.8	1.8	3.5
21	4.1	5.0	1.7	3.6	6.4	7.0	4.3	8.4	6.3	1.8	1.8	2.6
22	4.1	5.3	1.8	4.1	5.6	9.1	4.3	6.7	5.0	2.2	1.8	2.6
23	4.1	5.0	1.9	4.1	4.8	11	4.3	6.5	4.1	2.2	1.3	2.1
24	4.1	4.8	2.0	2.6	11	8.7	4.2	8.2	3.5	1.8	1.5	2.7
25	5.6	4.8	2.1	2.6	8.9	7.1	3.9	8.7	3.5	1.5	3.2	2.9
26	5.2	4.8	2.2	4.0	4.7	5.9	4.5	8.6	3.5	1.8	4.4	2.5
27	4.1	3.0	2.2	4.7	3.9	6.2	4.6	9.7	3.0	1.8	3.5	1.7
28	4.2	3.5	3.7	3.6	4.5	5.9	4.4	8.9	3.0	1.5	2.8	1.9
29	4.5	4.0	3.5	2.6	---	5.4	4.2	6.4	3.0	1.8	2.6	6.7
30	4.6	4.8	3.0	1.9	---	5.7	4.5	4.9	3.0	1.8	2.4	5.8
31	4.5	---	2.7	1.3	---	5.1	---	5.1	---	1.5	2.1	---
TOTAL	128.7	148.0	97.1	86.6	91.23	181.9	176.7	292.4	125.3	70.3	68.0	73.4
MEAN	4.15	4.93	3.13	2.79	3.26	5.87	5.89	9.43	4.18	2.27	2.19	2.45
MAX	5.6	6.8	5.6	4.7	11	11	12	46	7.4	4.1	4.4	6.7
MIN	3.5	3.0	1.7	1.3	.45	3.6	3.9	4.9	2.1	1.5	1.3	1.5
AC-FT	255	294	193	172	181	361	350	580	249	139	135	146

CAL YR 1976 TOTAL 7584.10 MEAN 20.7 MAX 500 MIN 1.7 AC-FT 15040
WTR YR 1977 TOTAL 1539.63 MEAN 4.22 MAX 46 MIN .45 AC-FT 3050

10371500 DEEP CREEK ABOVE ADEL, OR

LOCATION.--Lat 42°11'21", long 120°00'02", in SW¼NW¼ sec.15, T.39 S., R.23 E., Lake County, Hydrologic Unit 17120007, on left bank 700 ft (213 m) downstream from Drake Creek and 5 mi (8 km) west of Adel.

DRAINAGE AREA.--249 mi^2 (645 km^2).

PERIOD OF RECORD.--September 1922 to September 1923, October 1929 to current year. Monthly discharge only October 1929 to September 1932, published in WSP 1314.

GAGE.--Water-stage recorder. Datum of gage is 4,980.34 ft (1,518.008 m) above mean sea level (State Highway Department bench mark). Sept. 8 to Dec. 20, 1922, nonrecording gage. Dec. 21, 1922, to Sept. 30, 1923, and Oct. 11, 1929, to Dec. 23, 1964, water-stage recorder at site 700 ft (213 m) downstream at different datums. Jan. 20 to Sept. 30, 1965, nonrecording gage at site 2,000 ft (610 m) downstream at different datum.

REMARKS.--Records good except those for winter periods, which are fair. No regulation. Diversions for irrigation above station.

AVERAGE DISCHARGE.--49 years, 128 ft^3/s (3.625 m^3/s), 92,740 acre-ft/yr (114 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,420 ft^3/s (267 m^3/s) Dec. 23, 1964, gage height, 10.64 ft (3.243 m), from floodmark, from rating curve extended above 1,100 ft^3/s (31.2 m^3/s) on basis of slope-area measurements at 7.3 ft (2.2 m) and of peak flow; minimum, 1.7 ft^3/s (0.048 m^3/s) July 20, 27-29, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 221 ft^3/s (6.26 m^3/s) Apr. 8, gage height, 2.12 ft (0.646 m), no peak above base of 600 ft^3/s (17.0 m^3/s); minimum, 3.3 ft^3/s (0.093 m^3/s) July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	21	24	18	18	27	27	14	73	7.6	3.7	5.7
2	22	22	24	18	17	29	26	17	77	10	3.7	6.9
3	24	22	25	18	17	22	28	19	73	13	4.0	7.2
4	23	22	25	17	17	25	49	35	71	11	4.2	7.2
5	22	22	20	15	17	26	75	34	66	11	4.2	8.0
6	21	22	22	14	17	24	98	29	61	9.0	4.2	7.6
7	20	21	24	13	17	25	115	27	61	8.0	4.6	6.9
8	20	21	19	12	19	26	128	39	81	7.6	5.0	6.9
9	20	21	19	15	19	27	69	45	68	7.2	5.0	6.9
10	19	21	18	17	20	28	51	110	58	6.5	4.6	6.9
11	20	21	21	19	20	34	55	130	57	6.1	4.0	6.9
12	20	22	24	22	21	24	63	130	52	5.7	4.0	6.9
13	20	20	23	20	22	29	77	130	45	5.7	4.0	6.9
14	19	26	26	18	23	26	57	128	39	5.7	4.0	6.9
15	19	28	24	17	25	24	55	90	36	5.3	4.2	7.6
16	19	29	25	17	26	24	58	81	28	5.0	4.0	9.5
17	21	26	24	19	28	25	55	86	23	4.2	4.0	14
18	21	24	23	21	33	30	45	77	17	4.0	4.0	14
19	21	21	22	24	33	22	40	66	20	4.0	4.0	12
20	22	21	20	27	33	24	39	60	34	4.0	4.6	13
21	22	21	19	21	33	30	25	73	37	4.0	4.6	14
22	23	21	18	25	25	58	20	71	29	4.2	4.2	13
23	23	19	18	23	29	84	18	106	23	3.7	4.0	12
24	23	20	18	21	27	41	17	123	18	3.7	4.6	17
25	27	23	18	20	33	39	18	102	15	3.7	6.5	19
26	25	22	18	20	25	37	16	84	13	3.7	18	13
27	23	19	18	20	25	49	14	138	12	3.7	11	12
28	23	18	18	20	25	34	13	98	10	3.7	7.6	13
29	23	24	18	20	---	30	12	79	9.0	3.7	6.5	49
30	23	26	18	20	---	25	11	68	8.0	3.7	6.1	36
31	21	---	18	24	---	25	---	61	---	3.7	6.1	---
TOTAL	668	666	651	595	664	973	1374	2350	1214.0	182.1	163.2	365.9
MEAN	21.5	22.2	21.0	19.2	23.7	31.4	45.8	75.8	40.5	5.87	5.26	12.2
MAX	27	29	26	27	33	84	128	138	81	13	18	49
MIN	19	18	18	12	17	22	11	14	8.0	3.7	3.7	5.7
AC-FT	1320	1320	1290	1180	1320	1930	2730	4660	2410	361	324	726

CAL YR 1976 TOTAL 34741.0 MEAN 94.9 MAX 585 MIN 12 AC-FT 68910
WTR YR 1977 TOTAL 9866.2 MEAN 27.0 MAX 138 MIN 3.7 AC-FT 19570

10378500 HONEY CREEK NEAR PLUSH, OR

LOCATION.--Lat 42°25'30", long 119°55'20", in SW¼SW¼ sec.20, T.36 S., R.24 E., Lake County, Hydrologic Unit 17120007, on right bank 700 ft (213 m) upstream from mouth of canyon, 1 mi (1.6 km) northwest of Plush, and 4 mi (6.4 km) downstream from Twelvemile Creek.

DRAINAGE AREA.--170 mi^2 (440 km^2), approximately.

PERIOD OF RECORD.--May 1909 to September 1914 (prior to January 1910, gage heights only), March to May 1915, March to September 1921, March to June 1922, May 1930 to current year. Monthly discharge only May 1930 to September 1949, published in WSP 1314.

REVISED RECORDS.--WSP 1564: 1911-12. WSP 1714: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,552.60 ft (1,387.632 m) above mean sea level. Dec. 24, 1964, to Sept. 30, 1965, nonrecording gage at site 100 ft (30 m) downstream at different datums. See WSP 1927 for history of changes prior to Dec. 24, 1964.

REMARKS.--Records good. Slight regulation by five small reservoirs, combined capacity, 870 acre-ft (1.07 hm^3). Diversions for irrigation above station.

AVERAGE DISCHARGE.--51 years (water years 1911-14, 1931-77), 29.6 ft^3/s (0.838 m^3/s), 21,450 acre-ft/yr (26.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft^3/s (312 m^3/s) Dec. 23, 1964, gage height, 13.4 ft (4.08 m). from floodmark, from rating curve extended above 250 ft^3/s (7.08 m^3/s) on basis of slope-area measurements at gage height 10.46 ft (3.188 m) and of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36 ft^3/s (1.02 m^3/s) Apr. 8, gage height, 2.62 ft (0.799 m), no peak above base of 200 ft^3/s (5.66 m^3/s); minimum, 0.21 ft^3/s (0.006 m^3/s) Aug. 24, but may have been less during period of ice effect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	3.2	1.6	2.4	4.4	3.1	6.1	7.5	5.6	2.0	.31	.33
2	1.1	3.1	1.6	1.5	4.2	2.5	5.6	7.2	5.0	2.3	.31	.31
3	1.2	3.1	1.7	1.2	4.2	2.7	5.6	6.6	4.8	1.4	.33	.29
4	1.6	2.9	6.1	.95	4.4	2.6	6.3	7.8	4.3	1.4	.33	.37
5	1.7	2.9	4.5	.80	4.4	4.0	9.2	7.8	4.1	1.4	.37	.37
6	1.7	2.9	3.2	.70	4.8	4.8	16	8.0	3.7	1.3	.40	.37
7	1.6	2.9	3.0	.65	5.2	5.0	24	7.8	3.7	1.2	.40	.37
8	1.6	2.9	2.9	.60	5.4	4.8	26	7.5	4.0	1.1	.40	.35
9	1.7	2.9	2.8	.65	4.8	5.2	17	8.6	3.8	1.1	.40	.37
10	1.6	3.1	2.6	2.5	4.9	3.8	10	19	4.5	.93	.40	.43
11	1.6	3.2	2.7	3.5	5.2	3.5	11	16	6.1	.65	.40	.40
12	1.6	3.2	2.9	4.5	5.6	4.8	13	14	4.5	.51	.37	.43
13	1.7	3.1	2.9	4.2	6.0	3.5	14	17	4.0	.48	.40	.43
14	1.7	3.4	2.9	4.1	6.3	4.0	12	24	4.1	.48	.43	.43
15	1.7	3.5	2.9	4.0	6.6	5.9	11	19	4.0	.45	.43	.45
16	1.8	3.4	2.9	4.0	6.9	4.5	12	16	3.4	.43	.33	.59
17	1.9	3.4	2.9	4.0	7.5	4.3	12	14	2.8	.37	.33	.54
18	1.9	3.2	2.7	4.0	5.6	4.5	9.6	17	2.7	.35	.33	.51
19	2.0	3.2	2.5	4.0	5.4	5.0	8.6	13	2.6	.37	.33	.54
20	2.1	2.5	2.2	4.2	6.6	4.8	8.0	10	2.5	.40	.33	.62
21	2.2	2.3	2.2	4.5	6.3	4.3	8.0	8.9	2.6	.33	.33	.65
22	2.3	2.0	2.2	5.0	5.6	5.2	7.5	8.0	2.4	.37	.40	.65
23	2.4	2.0	2.5	4.5	4.1	5.9	7.2	8.0	2.0	.37	.31	.62
24	2.4	1.9	2.7	4.0	4.0	6.6	6.9	10	1.7	.33	.25	.62
25	2.7	1.9	3.0	3.9	5.4	5.9	6.3	9.6	1.4	.33	.35	.69
26	2.7	1.8	3.7	3.9	4.8	5.2	6.3	8.3	1.2	.31	.35	.59
27	2.7	1.6	3.3	3.9	4.0	5.4	6.1	12	1.0	.31	.27	.59
28	2.7	1.6	3.0	4.1	4.8	5.2	5.9	9.6	.85	.33	.35	.62
29	2.7	1.6	2.6	4.4	---	5.2	5.6	8.0	.69	.33	.41	.67
30	3.1	1.6	2.4	4.6	---	6.1	5.9	6.9	1.6	.35	.33	.60
31	3.1	---	2.4	4.6	---	5.4	---	6.3	---	.33	.33	---
TOTAL	61.9	80.3	87.5	99.85	147.4	143.7	302.7	343.4	95.64	22.31	11.01	14.80
MEAN	2.00	2.68	2.82	3.22	5.26	4.64	10.1	11.1	3.19	.72	.36	.49
MAX	3.1	3.5	6.1	5.0	7.5	6.6	26	24	6.1	2.3	.43	.69
MIN	1.1	1.6	1.6	.60	4.0	2.5	5.6	6.3	.69	.31	.25	.29
AC-FT	123	159	174	198	292	285	600	681	190	44	22	29

CAL YR 1976 TOTAL 5651.03 MEAN 15.4 MAX 120 MIN .73 AC-FT 11210
WTR YR 1977 TOTAL 1410.51 MEAN 3.86 MAX 26 MIN .25 AC-FT 2800

10384000 CHEWAUCAN RIVER NEAR PAISLEY, OR

LOCATION.--Lat 42°41'05", long 120°34'08", in SW¼NW¼ sec.26, T.33 S., R.18 E., Lake County, Hydrologic Unit 17120006, on left bank 1.2 mi (1.9 km) downstream from Mill Creek and 1.4 mi (2.3 km) southwest of Paisley.

DRAINAGE AREA.--275 mi^2 (712 km^2).

PERIOD OF RECORD.--April 1912 to September 1921, May 1924 to current year. Published as "above Conn ditch, near Paisley" April to September 1912 and May 1924 to September 1955, as "above Mill Creek, near Paisley" October 1912 to December 1913, and as "at Chewaucan Land & Cattle Co.'s gage, near Paisley" January to September 1914.

REVISED RECORDS.--WSP 860: Drainage area. WSP 1927: 1957-59.

GAGE.--Water-stage recorder. Datum of gage is 4,430 ft (1,350 m) above mean sea level (river-profile survey). See WSP 1734 for history of changes prior to Oct. 6, 1956.

REMARKS.--Records good. No regulation. Diversions for irrigation above station.

AVERAGE DISCHARGE.--62 years, 143 ft^3/s (4.050 m^3/s), 103,600 acre-ft/yr (128 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,490 ft^3/s (184 m^3/s) Dec. 22, 1964, gage height, 8.35 ft (2.545 m), from rating curve extended above 900 ft^3/s (25.5 m^3/s) on basis of slope-area measurement of peak flow; no flow for part of each day Dec. 7, 1927, Dec. 12, 1932, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 108 ft^3/s (3.06 m^3/s) Apr. 8, no peak above base of 500 ft^3/s (14.2 m^3/s); maximum gage height, 1.74 ft (0.530 m) Jan. 14, backwater from ice; minimum discharge, 8.9 ft^3/s (0.25 m^3/s) July 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	41	50	50	43	45	43	45	51	24	10	20
2	42	41	50	50	41	43	38	53	51	30	10	19
3	45	39	50	50	39	41	38	49	49	26	12	19
4	40	39	50	45	42	42	46	52	48	24	11	19
5	41	38	50	40	44	47	60	46	47	25	11	19
6	39	38	50	36	47	49	69	48	50	24	12	19
7	38	38	50	34	50	46	74	45	63	24	12	18
8	37	37	50	32	53	45	89	41	87	22	12	18
9	37	37	50	32	48	50	69	47	64	20	13	18
10	37	38	45	33	48	38	60	71	55	21	13	18
11	36	38	50	35	50	39	62	65	66	20	12	18
12	36	38	50	38	54	44	66	67	63	19	11	19
13	36	35	50	42	57	34	70	64	54	16	12	19
14	36	46	50	42	56	34	60	67	55	14	12	19
15	36	44	50	40	56	49	55	62	47	14	12	20
16	36	44	50	38	52	41	60	62	41	11	13	28
17	36	43	50	38	53	36	52	59	37	11	12	30
18	36	40	45	38	63	40	45	58	37	11	12	30
19	36	37	45	38	61	40	49	53	35	11	15	29
20	37	37	45	40	52	39	48	51	41	12	18	43
21	37	40	45	44	52	41	48	49	41	11	17	37
22	37	40	50	48	47	46	46	48	35	11	17	28
23	37	37	50	44	43	55	46	59	31	12	16	27
24	38	36	50	41	44	46	52	64	28	11	18	46
25	46	40	50	39	43	42	51	60	27	10	27	49
26	43	33	50	39	50	40	51	67	26	10	31	32
27	39	20	50	39	48	45	46	85	25	11	27	28
28	38	30	50	39	45	37	42	65	24	11	24	30
29	39	35	50	39	---	34	40	57	23	9.6	23	69
30	40	45	50	42	---	43	40	53	23	11	21	57
31	41	---	50	45	---	38	---	51	---	11	20	---
TOTAL	1188	1144	1525	1250	1381	1309	1615	1763	1324	497.6	486	845
MEAN	38.3	38.1	49.2	40.3	49.3	42.2	53.8	56.9	44.1	16.1	15.7	28.2
MAX	46	46	50	50	63	55	89	85	87	30	31	69
MIN	36	20	45	32	39	34	38	41	23	9.6	10	18
AC-FT	2360	2270	3020	2480	2740	2600	3200	3500	2630	987	964	1680

CAL YR 1976 TOTAL 39114.0 MEAN 107 MAX 615 MIN 20 AC-FT 77580
WTR YR 1977 TOTAL 14327.6 MEAN 39.3 MAX 89 MIN 9.6 AC-FT 28420

10388001 ANA RIVER NEAR SUMMER LAKE, OR

LOCATION.--Lat 43°00'00", long 120°45'00", in SE¼ sec.6, T.30 S., R.17 E., Lake County, Hydrologic Unit 17120005, on left bank 300 ft (91 m) downstream from diversion dam and 2.0 mi (3.2 km) northeast of town of Summer Lake.

PERIOD OF RECORD.--October 1929 to September 1939 (river only); June to September 1928, April 1931 to July 1938, and April 1940 to September 1942 (irrigation season records for Summer Lake Canal only); June 1951 to current year. Prior to June 1951 monthly discharge only, published in WSP 1314.

GAGE.--Water-stage recorder. Altitude of gage is 4,160 ft (1,268 m) from plans of Ana River diversion dam. Oct. 1, 1929, to Sept. 30, 1939, at site 80 ft (24 m) downstream at different datum.

REMARKS.--Records good. All records presented herein include flow in Summer Lake Canal which diverts 300 ft (91 m) above station for irrigation of lands along west side of Summer Lake. Flow regulated by gates at diversion dam. Source of stream is Ana River Springs, three-quarters of a mile above station, which are flooded over by pondage behind diversion dam.

AVERAGE DISCHARGE.--29 years (water years 1931-32, 1936, 1952-77), 91.8 ft^3/s (2.600 m^3/s), 66,510 acre-ft/yr (82.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 188 ft^3/s (5.32 m^3/s) Dec. 22, 1964, gage height, 2.81 ft (0.856 m), no flow in canal; minimum, 1.0 ft^3/s (0.028 m^3/s) Jan. 21, 22, 1970; minimum daily, 3.0 ft^3/s (0.085 m^3/s) Oct. 31, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 109 ft^3/s (3.09 m^3/s) May 10; minimum, 63 ft^3/s (1.78 m^3/s) Apr. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	88	91	88	85	89	71	90	87	83	87	88
2	83	88	91	87	86	89	70	91	87	81	87	87
3	82	88	91	87	86	88	70	91	87	81	87	87
4	82	88	91	86	86	88	69	91	87	81	87	86
5	83	88	92	86	86	87	69	91	86	84	87	87
6	84	89	92	86	86	87	68	90	87	81	87	84
7	85	89	92	86	86	86	70	89	87	81	88	85
8	85	90	92	85	86	86	67	89	87	81	87	86
9	85	90	92	85	86	85	66	90	87	76	87	86
10	85	90	91	85	87	84	67	93	87	75	87	86
11	86	90	91	85	87	84	68	94	87	81	87	87
12	86	90	91	84	87	83	70	92	87	90	87	87
13	85	90	91	83	87	82	71	91	86	86	87	88
14	85	90	91	83	87	82	71	84	88	85	87	89
15	85	90	90	83	87	81	73	85	87	84	87	90
16	86	90	90	84	87	81	74	86	86	83	88	90
17	86	90	89	84	87	80	73	86	86	79	88	91
18	87	91	89	84	88	79	73	86	85	77	88	91
19	87	91	88	84	88	79	84	86	82	79	88	92
20	87	91	88	84	88	78	88	86	85	81	89	93
21	87	91	88	85	88	78	86	87	84	86	89	94
22	87	91	88	85	88	77	87	87	86	86	88	93
23	87	91	87	85	88	76	87	87	87	84	88	93
24	88	91	88	85	88	76	88	86	86	84	89	93
25	88	91	88	85	88	75	88	85	87	84	90	92
26	88	91	88	86	89	75	89	88	87	87	90	92
27	88	91	88	86	89	74	88	90	88	87	90	92
28	88	91	88	85	89	73	90	87	89	87	90	90
29	87	91	88	85	---	73	90	83	87	87	91	86
30	87	91	89	85	---	72	90	88	85	86	91	83
31	88	---	88	85	---	72	---	88	---	87	91	---
TOTAL	2659	2701	2781	2636	2440	2499	2315	2737	2594	2574	2734	2668
MEAN	85.8	90.0	89.7	85.0	87.1	80.6	77.2	88.3	86.5	83.0	88.2	88.9
MAX	88	91	92	88	89	89	90	94	89	90	91	94
MIN	82	88	87	83	85	72	66	83	82	75	87	83
AC-FT	5270	5360	5520	5230	4840	4960	4590	5430	5150	5110	5420	5290

CAL YR 1976 TOTAL 31583 MEAN 86.3 MAX 101 MIN 63 AC-FT 62640
WTR YR 1977 TOTAL 31338 MEAN 85.9 MAX 94 MIN 66 AC-FT 62160

NOTE.--No gage-height record Jan. 29 to Mar. 1, Mar. 5 to Apr. 5.

10390001 SILVER CREEK NEAR SILVER LAKE, OR

LOCATION.--Lat 43°06'50", long 121°03'59" in NE¼SW¼ sec.28, T.28 S., R.14 E., Lake County, Hydrologic Unit 17120005, on right bank 1.5 mi (2.4 km) downstream from diversion dam of Silver Lake Irrigation District, 1.5 mi (2.4 km) southwest of town of Silver Lake, and 3 mi (5 km) upstream from Bridge Creek.

DRAINAGE AREA.--180 mi^2 (466 km^2), approximately.

PERIOD OF RECORD.--January 1905 to March 1907, January 1909 to September 1927, February to December 1928, February 1929 to current year.

REVISED RECORDS.--WSP 1564: 1906, 1910, 1921(M). WSP 1734: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Sept. 15, 1932. Datum of gage is 4,361.22 ft (1,329.300 m) above mean sea level. Prior to May 24, 1932, nonrecording gage or water-stage recorder at practically same location at datum 1.00 ft (0.305 m) higher, or nonrecording gage at diversion dam outlet 1.5 mi (2.4 km) upstream at different datum.

REMARKS.--Records fair. Flow regulated by reservoir, capacity, 800 acre-ft (986,000 m^3), above diversion dam 1.5 mi (2.4 km) above station and by Thompson Valley Reservoir, capacity, 17,400 acre-ft (21.5 hm^3), 11 mi (18 km) above station. Records given herein include flow in Silver Lake Irrigation District Canal which has diverted 1.5 mi (2.4 km) above station 1923-43, 1966-76.

AVERAGE DISCHARGE.--65 years (water years 1906, 1910-27, 1930-41, 1944-77), 30.0 ft^3/s (0.850 m^3/s), 21,740 acre-ft/yr (26.8 hm^3/yr), including diversion by Silver Lake Irrigation District Canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,800 ft^3/s (51.0 m^3/s) Mar. 20, 1907, gage height, 10.08 ft (3.072 m), present datum, from rating curve extended above 700 ft^3/s (19.8 m^3/s); maximum gage height, 10.3 ft (3.139 m) Dec. 22, 1964; no flow at times in 1931-32, 1934, 1937.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 48 ft^3/s (1.36 m^3/s) May 21-23; minimum daily, 1.1 ft^3/s (0.031 m^3/s) Mar. 5-13, 15-18, Mar. 21 to Apr. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	2.4	1.7	1.6	2.0	2.0	1.1	36	41	38	34	20
2	19	2.5	1.7	1.6	2.0	1.6	1.1	36	42	35	32	19
3	18	2.6	1.7	1.6	2.0	1.2	1.1	36	43	32	32	19
4	18	2.8	1.7	1.5	2.0	1.9	1.2	36	42	33	32	19
5	18	3.0	1.7	1.5	2.0	1.1	1.2	38	42	33	34	20
6	18	3.2	1.7	1.4	2.5	1.1	1.2	42	42	28	34	22
7	19	3.3	1.7	1.3	2.5	1.1	1.2	44	43	27	34	22
8	19	3.4	1.7	1.2	2.5	1.1	1.2	44	44	26	35	23
9	19	3.6	1.7	1.5	2.5	1.1	1.2	45	44	26	35	23
10	20	3.7	1.7	1.8	2.5	1.1	1.2	45	44	26	35	24
11	20	3.3	1.7	2.2	2.5	1.1	1.2	30	43	26	35	25
12	20	3.0	1.7	2.6	2.5	1.1	1.3	27	44	28	35	26
13	19	2.7	1.7	2.6	2.5	1.1	1.4	28	43	30	35	26
14	20	2.4	1.7	2.6	2.5	1.2	1.6	28	43	30	36	26
15	20	2.1	1.7	2.0	2.5	1.1	1.7	35	42	31	35	26
16	19	1.9	1.7	1.7	2.5	1.1	1.8	43	42	34	35	26
17	10	1.7	1.7	1.7	2.5	1.1	1.9	42	41	34	34	25
18	3.4	1.6	1.7	2.1	2.5	1.1	2.0	39	41	35	34	26
19	3.3	1.7	1.4	2.4	2.5	1.2	2.1	42	42	37	35	26
20	3.3	2.5	1.4	2.7	2.5	1.2	4.3	46	42	39	34	24
21	3.1	2.3	1.4	2.7	2.0	1.1	7.1	48	43	39	33	26
22	2.8	2.3	1.4	2.7	2.0	1.1	12	48	43	37	28	25
23	2.7	2.3	1.4	2.7	2.0	1.1	13	48	43	37	26	25
24	2.6	2.1	1.4	2.7	2.0	1.1	12	46	42	37	26	25
25	2.4	2.1	1.6	2.7	2.0	1.1	19	45	43	36	27	25
26	2.4	1.9	1.6	2.4	2.0	1.1	21	44	42	36	28	25
27	2.2	1.8	1.6	2.2	2.0	1.1	24	44	42	36	28	24
28	2.5	1.7	1.6	2.0	2.0	1.1	24	44	41	35	26	20
29	2.3	1.7	1.6	2.0	---	1.1	31	43	41	35	24	15
30	2.4	1.7	1.6	2.0	---	1.1	36	42	41	35	20	9.2
31	2.4	---	1.6	2.0	---	1.1	---	41	---	35	20	---
TOTAL	351.8	73.3	50.2	63.7	63.5	36.7	230.1	1255	1271	1026	971	686.2
MEAN	11.3	2.44	1.62	2.05	2.27	1.18	7.67	40.5	42.4	33.1	31.3	22.9
MAX	20	3.7	1.7	2.7	2.5	2.0	36	48	44	39	36	26
MIN	2.2	1.6	1.4	1.2	2.0	1.1	1.1	27	41	26	20	9.2
AC-FT	698	145	100	126	126	73	456	2490	2520	2040	1930	1360

CAL YR 1976 TOTAL 8579.1 MEAN 23.4 MAX 116 MIN 1.4 AC-FT 17020
WTR YR 1977 TOTAL 6078.5 MEAN 16.7 MAX 48 MIN 1.1 AC-FT 12060

10393500 SILVIES RIVER NEAR BURNS, OR

LOCATION.--Lat 43°42'55", long 119°10'35", in NW¼NW¼ sec.31, T.21 S., R.30 E., Harney County, Hydrologic Unit 17120002, on left bank 5 mi (8 km) downstream from Emigrant Creek and 11 mi (18 km) northwest of Burns.

DRAINAGE AREA.--934 mi^2 (2,419 km^2).

PERIOD OF RECORD.--May 1903 to July 1906, December 1908 to December 1912, March 1913 to September 1917 (irrigation seasons only), March 1918 to October 1920, March 1921 to July 1922 (irrigation seasons only), October 1922 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,195 ft (1,279 m) above mean sea level (river-profile survey). See WSP 1734 for history of changes prior to Oct. 4, 1951.

REMARKS.--Records good except those for December, January, and February, which are fair. No regulation. Diversions for irrigation above station during periods of high flow only.

AVERAGE DISCHARGE.--64 years (water years 1904-5, 1910-12, 1918-21, 1923-77), 164 ft^3/s (4.644 m^3/s), 118,800 acre-ft/yr (146 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,960 ft^3/s (140 m^3/s) Apr. 6, 1952, gage height, 15.2 ft (4.63 m); no flow July 19 to Sept. 22, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 124 ft^3/s (3.51 m^3/s) Apr. 8, gage height, 2.24 ft (0.683 m); minimum, 0.70 ft^3/s (0.020 m^3/s) Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	36	19	18	14	36	39	33	35	7.3	1.2	4.5
2	28	35	19	18	14	36	34	35	29	7.1	1.0	4.2
3	30	44	19	18	14	36	37	39	27	6.8	.92	4.2
4	24	71	19	18	14	36	42	41	24	6.5	.94	4.2
5	23	61	19	18	15	36	55	42	22	6.2	.80	4.5
6	22	58	19	17	16	37	74	38	21	6.0	.81	4.3
7	22	50	19	12	17	39	97	34	20	5.7	.80	4.2
8	22	39	19	12	18	40	115	36	20	5.4	.89	3.9
9	22	36	18	12	30	43	105	38	21	5.3	.75	3.9
10	22	35	18	14	50	42	107	44	21	5.1	.91	4.2
11	22	35	18	17	50	41	108	112	21	4.8	1.2	4.2
12	22	34	19	21	50	36	109	101	17	4.7	1.2	4.2
13	22	29	19	21	50	32	110	100	17	4.1	.97	4.2
14	21	34	19	21	50	32	111	84	16	3.9	.85	4.2
15	21	44	19	21	50	31	101	89	16	3.6	1.9	4.7
16	21	46	19	21	50	31	86	89	16	3.4	2.6	4.9
17	21	47	18	21	50	31	80	87	15	3.2	2.4	5.2
18	21	48	17	21	50	31	64	83	14	2.9	2.3	5.7
19	21	50	16	21	50	30	62	72	13	2.5	2.2	6.1
20	20	49	15	19	42	29	59	47	13	2.3	2.1	6.6
21	21	45	15	19	38	30	53	49	12	2.0	2.0	7.5
22	23	44	16	19	35	33	52	44	12	1.8	2.2	7.8
23	24	38	17	16	33	39	44	44	12	1.8	2.3	8.0
24	24	34	18	13	35	38	43	50	11	1.6	2.5	7.6
25	27	25	19	12	36	36	46	46	10	1.6	2.8	7.8
26	30	20	19	12	40	40	44	40	9.7	1.7	3.3	8.3
27	31	16	19	11	42	44	38	41	9.0	1.9	3.8	8.8
28	31	16	19	11	38	38	36	42	8.5	2.0	4.3	8.4
29	33	17	19	12	---	37	34	44	8.0	1.8	4.5	8.2
30	35	18	19	14	---	37	33	44	7.7	1.7	4.5	8.7
31	35	---	19	14	---	37	---	42	---	1.4	4.5	---
TOTAL	770	1154	566	514	991	1114	2018	1730	497.9	116.1	63.44	173.2
MEAN	24.8	38.5	18.3	16.6	35.4	35.9	67.3	55.8	16.6	3.75	2.05	5.77
MAX	35	71	19	21	50	44	115	112	35	7.3	4.5	8.8
MIN	20	16	15	11	14	29	33	33	7.7	1.4	.75	3.9
AC-FT	1530	2290	1120	1020	1970	2210	4000	3430	988	230	126	344

CAL YR 1976 TOTAL 55212.00 MEAN 151 MAX 1030 MIN 12 AC-FT 109500
WTR YR 1977 TOTAL 9707.64 MEAN 26.6 MAX 115 MIN .75 AC-FT 19260

COMBINED MONTHLY DISCHARGE OF EAST FORK SILVIES RIVER, WEST FORK SILVIES RIVER AND FLOOD BYPASS NEAR LAWEN, OR

The combined flow of the East Fork Silvies River, West Fork Silvies River, and flood bypass provide an estimate of the total flow entering Malheur Lake from the Silvies River Basin.

10395000 EAST FORK SILVIES RIVER NEAR LAWEN, OR.--Lat 43°25'35", long 118°48'05", in SW¼ sec.5, T.25 S., R.32½ E., Harney County, Hydrologic Unit 17120002, on left bank downstream side of road bridge, 1.6 mi (2.6 km) south of Lawen, and 15.2 mi (24.5 km) southeast of Burns. Records available March to June 1916, March 1972 to September 1976. October 1976 to current year (monthly estimated discharge only).

10395500 WEST FORK SILVIES RIVER NEAR LAWEN, OR.--Lat 43°23'00", long 118°50'03", in SE¼SW¼ sec.24, T.25 S., R.32 E., Harney County, Hydrologic Unit 17120002, near right bank on upstream side of bridge on county road, 4.9 mi (7.9 km) southwest of Lawen. Records available March to July 1916, April to July 1917, April to June 1919, April to June 1922, March 1972 to September 1976. October 1976 to current year (monthly estimated discharge only).

10395600 FLOOD BYPASS.--During heavy runoff periods flood water bypasses the East Fork Silvies River and West Fork Silvies River crossing the county road at several bridges and culverts between the East Fork and West Fork. Monthly estimated discharge record available March 1972 to current year.

REMARKS.--Records poor. East Fork and West Fork Silvies River are distributaries that originate at bifurcation of Silvies River 20 mi (32 km) upstream. Diversion by flooding for irrigation of many thousand acres above measuring points. Flows are estimated on the basis of periodic flow measurements, observations of no flow, and hydrographic comparison with upstream station.

Runoff in acre-feet

	(10395000) East Fork Silvies River	(10395500) West Fork Silvies River	(10395600) Flood Bypass	Combined flow of East Fork Silvies West Fork Silvies and flood bypass
October 1976	10	210	0	220
November	230	70	0	300
December	40	0	0	40
CAL YR 1976	5,110	3,080	4,500	12,690
January 1977	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	0	0	0	0
June	0	0	0	0
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
WTR YR 1977	280	280	0	560

10396000 DONNER UND BLITZEN RIVER NEAR FRENCHGLEN, OR
(National stream-quality accounting network station)

LOCATION.--Lat 42°47'28", long 118°52'00", in NW¼NW¼ sec.20, T.32 S., R.32½ E., Harney County, Hydrologic Unit 17120003, Bureau of Land Management land, on left bank 1.5 mi (2.4 km) upstream from upper diversions for Malheur Migratory Waterfowl Refuge, 2.0 mi (3.2 km) downstream from Fish Creek, and 3.5 mi (5.6 km) southeast of Frenchglen.

DRAINAGE AREA.--200 mi² (518 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1911 to September 1913, March 1914 to September 1916, April 1917 to September 1921, August to November 1929, April to September 1930, December 1937 to current year. Monthly discharge only for some periods, published in WSP 1314. Published as "near Diamond" 1911-21. Records of discharge for January 1909 to September 1910 (published in WSP 270, 290, and 370, for a non-equivalent site as "near Diamond") have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 330: Drainage area (former site). WSP 860: Drainage area (present site). WSP 1564: 1938-39(M), 1942-43(M), 1948(M), 1951(P), 1952-53. WSP 1714: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,254 ft (1,297 m) above mean sea level (levels by Fish and Wildlife Service). Prior to December 1937, nonrecording gage at several sites within 2 mi (3 km) downstream at different datums. Dec. 6, 1937, to Feb. 14, 1938, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--47 years (water years 1912-13, 1915-16, 1918-21, 1939-77), 119 ft³/s (3.370 m³/s), 86,220 acre-ft/yr (106 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,830 ft³/s (80.1 m³/s) Feb. 28, 1972, gage height, 6.36 ft (1.939 m); minimum, 4.2 ft³/s (0.12 m³/s) Dec. 9, 1972, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 650 ft³/s (18.4 m³/s) and maximum discharge, 1,080 ft³/s (30.6 m³/s) June 7, gage height, 4.38 ft (1.335 m); minimum, 11 ft³/s (0.31 m³/s) Dec. 20, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	50	38	38	37	37	42	162	328	64	29	27
2	56	50	46	59	36	35	38	154	344	62	29	26
3	59	50	46	51	38	40	42	129	296	60	31	26
4	56	48	47	44	40	38	51	115	367	58	30	26
5	56	48	45	42	43	35	67	108	362	56	30	25
6	54	48	44	26	42	42	83	104	381	54	29	25
7	54	47	46	27	43	47	104	102	465	50	30	25
8	53	47	46	26	42	47	143	98	381	48	30	24
9	53	47	46	30	40	54	146	104	249	46	29	25
10	51	47	40	40	39	40	92	119	197	46	28	25
11	51	47	47	50	39	37	94	106	226	44	28	25
12	51	47	50	54	38	43	102	119	185	42	27	25
13	51	43	47	48	38	35	124	121	176	42	27	25
14	51	51	44	52	39	37	96	129	162	40	28	25
15	51	48	43	56	39	39	96	124	143	39	28	26
16	50	51	44	59	42	37	117	129	138	38	28	27
17	50	50	44	54	44	38	126	131	129	37	27	29
18	50	48	39	46	42	37	106	138	117	35	26	29
19	48	47	29	42	39	38	98	143	115	35	27	29
20	48	46	27	37	40	37	98	148	110	37	26	31
21	50	47	33	35	39	38	102	154	105	35	29	32
22	50	47	46	32	38	43	104	165	100	35	27	30
23	50	44	51	29	34	51	117	191	96	34	26	29
24	48	46	42	25	39	43	154	176	92	34	29	42
25	50	47	43	28	37	39	188	165	86	34	35	38
26	51	42	46	26	38	40	188	167	80	33	46	31
27	48	35	40	29	38	46	159	176	76	32	34	30
28	50	32	33	29	39	37	159	159	72	31	31	30
29	50	33	43	30	---	43	156	154	68	30	30	54
30	50	35	37	39	---	42	162	154	66	30	28	47
31	50	---	34	41	---	40	---	200	---	30	28	---
TOTAL	1596	1368	1306	1224	1102	1255	3354	4344	5712	1291	910	888
MEAN	51.5	45.6	42.1	39.5	39.4	40.5	112	140	190	41.6	29.4	29.6
MAX	59	51	51	59	44	54	188	200	465	64	46	54
MIN	48	32	27	25	34	35	38	98	66	30	26	24
AC-FT	3170	2710	2590	2430	2190	2490	6650	8620	11330	2560	1800	1760

CAL YR 1976 TOTAL 43746 MEAN 120 MAX 608 MIN 27 AC-FT 86770
WTR YR 1977 TOTAL 24350 MEAN 66.7 MAX 465 MIN 24 AC-FT 48300

10396000 DONNER UND BLITZEN RIVER NEAR FRENCHGLEN, OR
(National stream-quality accounting network station)

LOCATION.--Lat 42°47'28", long 118°52'00", in NW¼NW¼ sec.20, T.32 S., R.32½ E., Harney County, Hydrologic Unit 17120003, Bureau of Land Management land, on left bank 1.5 mi (2.4 km) upstream from upper diversions for Malheur Migratory Waterfowl Refuge, 2.0 mi (3.2 km) downstream from Fish Creek, and 3.5 mi (5.6 km) southeast of Frenchglen.

DRAINAGE AREA.--200 mi^2 (518 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1911 to September 1913, March 1914 to September 1916, April 1917 to September 1921, August to November 1929, April to September 1930, December 1937 to current year. Monthly discharge only for some periods, published in WSP 1314. Published as "near Diamond" 1911-21. Records of discharge for January 1909 to September 1910 (published in WSP 270, 290, and 370, for a non-equivalent site as "near Diamond") have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 330: Drainage area (former site). WSP 860: Drainage area (present site). WSP 1564: 1938-39(M), 1942-43(M), 1948(M), 1951(P), 1952-53. WSP 1714: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,254 ft (1,297 m) above mean sea level (levels by Fish and Wildlife Service). Prior to December 1937, nonrecording gage at several sites within 2 mi (3 km) downstream at different datums. Dec. 6, 1937, to Feb. 14, 1938, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--47 years (water years 1912-13, 1915-16, 1918-21, 1939-77), 119 ft^3/s (3.370 m^3/s), 86,220 acre-ft/yr (106 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,830 ft^3/s (80.1 m^3/s) Feb. 28, 1972, gage height, 6.36 ft (1.939 m); minimum, 4.2 ft^3/s (0.12 m^3/s) Dec. 9, 1972, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 650 ft^3/s (18.4 m^3/s) and maximum discharge, 1,080 ft^3/s (30.6 m^3/s) June 7, gage height, 4.38 ft (1.335 m); minimum, 11 ft^3/s (0.31 m^3/s) Dec. 20, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	50	38	38	37	37	42	162	328	64	29	27
2	56	50	46	59	36	35	38	154	344	62	29	26
3	59	50	46	51	38	40	42	129	296	60	31	26
4	56	48	47	44	40	38	51	115	367	58	30	26
5	56	48	45	42	43	35	67	108	362	56	30	25
6	54	48	44	26	42	42	83	104	381	54	29	25
7	54	47	46	27	43	47	104	102	465	50	30	25
8	53	47	46	26	42	47	143	98	381	48	30	24
9	53	47	46	30	40	54	146	104	249	46	29	25
10	51	47	40	40	39	40	92	119	197	46	28	25
11	51	47	47	50	39	37	94	106	226	44	28	25
12	51	47	50	54	38	43	102	119	185	42	27	25
13	51	43	47	48	38	35	124	121	176	42	27	25
14	51	51	44	52	39	37	96	129	162	40	28	25
15	51	48	43	56	39	39	96	124	143	39	28	26
16	50	51	44	59	42	37	117	129	138	38	28	27
17	50	50	44	54	44	38	126	131	129	37	27	29
18	50	48	39	46	42	37	106	138	117	35	26	29
19	48	47	29	42	39	38	98	143	115	35	27	29
20	48	46	27	37	40	37	98	148	110	37	26	31
21	50	47	33	35	39	38	102	154	105	35	29	32
22	50	47	46	32	38	43	104	165	100	35	27	30
23	50	44	51	29	34	51	117	191	96	34	26	29
24	48	46	42	25	39	43	154	176	92	34	29	42
25	50	47	43	28	37	39	188	165	86	34	35	38
26	51	42	46	26	38	40	188	167	80	33	46	31
27	48	35	40	29	38	46	159	176	76	32	34	30
28	50	32	33	29	39	37	159	159	72	31	31	30
29	50	33	43	30	---	43	156	154	68	30	30	54
30	50	35	37	39	---	42	162	154	66	30	28	47
31	50	---	34	41	---	40	---	200	---	30	28	---
TOTAL	1596	1368	1306	1224	1102	1255	3354	4344	5712	1291	910	888
MEAN	51.5	45.6	42.1	39.5	39.4	40.5	112	140	190	41.6	29.4	29.6
MAX	59	51	51	59	44	54	188	200	465	64	46	54
MIN	48	32	27	25	34	35	38	98	66	30	26	24
AC-FT	3170	2710	2590	2430	2190	2490	6650	8620	11330	2560	1800	1760

CAL YR 1976 TOTAL 43746 MEAN 120 MAX 608 MIN 27 AC-FT 86770
WTR YR 1977 TOTAL 24350 MEAN 66.7 MAX 465 MIN 24 AC-FT 48300

10396000 DONNER UND BLITZEN RIVER NEAR FRENCHGLEN, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.
SPECIFIC CONDUCTANCE: October 1975 to current year.
WATER TEMPERATURES: October 1975 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 219 micromhos July 23, 1976; minimum daily, 24 micromhos May 31, 1977.
WATER TEMPERATURES: Maximum, 28.5°C July 31, 1977; minimum, 0.0°C many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 203 micromhos June 19; minimum daily, 24 micromhos May 31.
WATER TEMPERATURES: Maximum, 28.5°C July 31, minimum recorded, 0.0°C many days in December and January.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
OCT 19...	1000	51	2.0	7.4	89	B2	B9	26	8.6	3.3	4.9
NOV 30...	1115	48	.0	7.2	81	B1	B15	27	8.9	3.7	5.7
JAN 04...	1200	42	.0	7.4	79	<1	B11	29	7.8	3.2	5.0
FEB 08...	1125	41	1.0	7.3	85	--	40	27	7.7	3.3	5.0
MAR 08...	1010	44	3.0	7.7	79	B6	B19	26	7.1	3.3	5.0
APR 05...	1000	72	9.0	7.6	71	B9	B8	23	7.2	3.2	5.1
MAY 03...	1145	131	7.5	7.3	62	--	--	20	6.9	2.8	3.5
JUN 01...	1200	314	13.0	7.4	42	--	77	14	6.3	1.9	2.7
JUL 06...	1045	46	13.7	7.6	62	B9	B570	23	8.0	3.2	4.7
AUG 02...	1040	27	19.0	--	86	B11	680	24	9.4	3.6	5.3
11...	0945	--	--	--	--	--	--	--	--	--	--
SEP 07...	1030	25	15.0	8.0	84	B8	190	27	7.4	3.6	5.6

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 19...	56	0	2.4	1.2	.1	.01	.14	.15	.03	35	0
NOV 30...	48	0	11	.7	.2	.68	.23	.91	.10	37	0
JAN 04...	53	0	2.5	1.0	.1	.48	.16	.64	.05	33	0
FEB 08...	51	0	1.1	.9	.1	.42	.18	.60	.05	33	0
MAR 08...	47	0	5.1	1.5	.2	.27	.03	.30	.07	31	0
APR 05...	45	0	3.2	1.6	.2	.23	.49	.72	.14	31	0
MAY 03...	38	0	2.4	.7	.1	.11	.07	.18	.04	29	0
JUN 01...	26	0	4.0	1.5	.1	.12	1.5	1.6	1.0	24	2
JUL 06...	53	0	2.9	.6	.1	.03	.00	.03	.01	33	0
AUG 02...	53	0	1.1	10	.1	.01	.00	.01	.03	38	0
11...	--	--	--	--	--	--	--	--	.03	--	--
SEP 07...	61	0	.3	.9	.1	.04	.06	.10	.01	33	0

B: RESULTS BASED ON NON-IDEAL COLONY COUNT

10396000 DONNER UND BLITZEN RIVER NEAR FRENCHGLEN, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	SODIUM AD-SORP-TION RATIO	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TUR-BID-ITY (JTU)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	ALKA-LINITY AS CACO3 (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT 19...	.4	72	75	9.99	.10	3	8	1.1	61	46	.7
NOV 30...	.4	79	82	10.4	.11	8	19	2.5	74	39	--
JAN 04...	.4	77	76	8.90	.10	4	11	1.3	78	43	.9
FEB 08...	.4	79	71	8.75	.11	6	10	1.1	95	42	--
MAR 08...	.4	74	73	8.79	.10	20	13	1.5	86	39	--
APR 05...	.4	67	67	13.0	.09	25	23	4.5	78	37	5.2
MAY 03...	.3	49	56	17.3	.07	10	23	8.1	78	31	--
JUN 01...	.2	43	44	36.5	.06	120	--	--	--	21	--
JUL 06...	.4	64	70	7.95	.09	2	6	.75	93	43	.6
AUG 02...	.4	70	81	5.14	.10	2	5	.37	94	43	--
11...	--	--	--	--	--	--	--	--	--	--	--
SEP 07...	.4	69	77	4.73	.09	2	5	.34	82	50	--

DATE	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)
OCT 19...	240	40	0	0	1	0	<10	1	0	0	<50
JAN 04...	470	40	10	10	--	0	<10	0	0	0	<50
APR 05...	2500	110	60	20	0	0	<10	0	0	0	<50
JUL 06...	330	40	8	0	0	0	<10	1	0	0	<50

DATE	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)
OCT 19...	0	<10	1	<100	2	10	10	0	0	.0	.0
JAN 04...	0	10	1	<100	0	10	0	0	0	.1	.1
APR 05...	0	20	4	<100	2	30	10	0	0	.1	.0
JUL 06...	0	<10	2	<100	4	8	2	4	0	.0	.0

10396000 DONNER UND BLITZEN RIVER NEAR FRENCHGLEN, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 19,76	NOV 30,76	JAN 4,77	FEB 8,77	MAY 3,77
TIME	1000	1115	1200	1125	1145
TOTAL CELLS/ML	360	1300	400	120	120
DIVERSITY: DIVISION	0.0	1.0	0.0	1.0	0.2
.CLASS	0.0	1.0	0.0	1.0	0.2
..ORDER	0.0	1.1	0.0	1.0	0.5
...FAMILY	2.5	2.0	2.3	2.1	2.5
....GENUS	3.0	2.4	2.4	2.1	2.8

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	--	-	--	-	--	-
....CHLORELLA	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....SCENEDESMUS	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....MELOSIRA	--	-	12	1	--	-	--	-	5	4
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	27	8	*	0	8	2	--	-	10	8
....COCCONEIS	34	9	*	0	4	1	3	3	5	4
....RHOICOSPHENIA	34	9	*	0	19	5	--	-	--	-
...CYMBELLACEAE										
....AMPHORA	--	-	--	-	--	-	--	-	5	4
....CYMBELLA	27	8	97	6	91#	23	26#	21	20#	17
....RHOPALODIA	--	-	--	-	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	--	-	*	0	--	-	--	-	--	-
...EUNOTIACEAE										
....EUNOTIA	--	-	--	-	*	0	--	-	--	-
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	4	1	--	-	--	-
....HANNAEA	13	4	*	0	4	1	--	-	--	-
....SYNEDRA	20	6	42	3	8	2	3	3	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	34	9	*	0	19	5	--	-	10	8
...MERIDIONACEAE										
....MERIDION	--	-	--	-	*	0	--	-	--	-
...NAVICULACEAE										
....FRUSTULIA	--	-	--	-	--	-	--	-	--	-
....NAVICULA	110#	30	180	14	110#	28	13	11	24#	21
....PINNULARIA	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	54#	15	300#	24	130#	32	29#	24	34#	29
...SURIRELLACEAE										
....SURIRELLA	7	2	*	0	4	1	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROCCOCCALES										
...CHROCCOCCAEAE										
....AGMENELLUM	--	-	--	-	--	-	--	-	--	-
..HORMOGONALES										
...OSCILLATORIACEAE										
....LYNGBYA	--	-	240#	19	--	-	--	-	--	-
....OSCILLATORIA	--	-	390#	31	--	-	49#	39	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	5	4
....TRACHELOMONAS	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

10396000 DONNER UND BLITZEN RIVER NEAR FRENCHGLEN, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	JUN 1,77	JUL 6,77	AUG 2,77	SEP 7,77
TIME	1200	1045	1040	1030
TOTAL CELLS/ML	4500	220	2800	1600
DIVERSITY: DIVISION	1.0	0.6	0.7	0.6
.CLASS	1.0	0.6	0.7	0.6
..ORDER	1.0	0.6	0.7	0.6
...FAMILY	1.8	2.8	1.1	2.6
....GENUS	2.0	3.0	1.2	2.8

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	*	0	--	-
....CHLORELLA	*	0	--	-	--	-	--	-
...SCENEDESMACEAE								
....SCENEDESMUS	57	1	12	6	21	1	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....MELOSIRA	*	0	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	*	0	--	-	*	0	42	3
....COCCONEIS	86	2	12	6	36	1	210	13
....RHOICOSPHENIA	170	4	27	13	21	1	56	3
...CYMBELLACEAE								
....AMPHORA	--	-	6	3	--	-	--	-
....CYMBELLA	290	6	6	3	42	1	42	3
....RHOPALODIA	--	-	--	-	*	0	--	-
...DIATOMACEAE								
....DIATOMA	*	0	--	-	42	1	84	5
...EUNOTIACEAE								
....EUNOTIA	--	-	--	-	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	130	3	--	-	--	-	--	-
....HANNAEA	140	3	--	-	--	-	--	-
....SYNEDRA	43	1	21	10	100	4	28	2
...GOMPHONEMATACEAE								
....GOMPHONEMA	43	1	24	11	36	1	170	10
...MERIDIONACEAE								
....MERIDION	*	0	--	-	--	-	--	-
...NAVICULACEAE								
....FRUSTULIA	*	0	--	-	--	-	--	-
....NAVICULA	290	6	40#	18	78	3	490#	30
....PINNULARIA	*	0	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	190	4	58#	26	42	1	260#	16
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	*	0	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROCCOCCALES								
...CHROCCOCCAEAE								
....AGMENELLUM	--	-	--	-	21	1	--	-
..HORMOGONALES								
...OSCILLATORIACEAE								
....LYNGBYA	--	-	--	-	--	-	--	-
....OSCILLATORIA	3000#	67	--	-	2300#	84	250#	15
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	12	6	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

10396000 DONNER UND BLITZEN RIVER NEAR FRENCHGLEN, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	LENGTH OF EXPO-SURE (DAYS)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	CHLOR-A PERI-PHYTON CHROMO-SPECT-METRIC (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-SPECT-METRIC (MG/M2)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)
OCT 19...	41	2626	1.67	.287	--	--
JAN 04...	--	1604	.144	.035	--	--
JUL 06...	35	2972	--	--	.471	.256

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	93	90	87	82	84	77	62	48	142	90	93
2	105	93	89	83	84	84	78	62	75	114	84	93
3	104	93	88	81	86	83	78	63	96	95	91	94
4	103	92	87	78	87	84	76	62	109	79	91	94
5	104	92	87	79	86	85	73	62	106	74	91	94
6	105	92	89	86	84	83	83	61	105	76	90	95
7	107	92	88	88	85	80	90	60	78	77	91	---
8	116	92	86	90	84	80	93	59	74	78	91	---
9	123	92	86	88	85	75	90	59	104	79	91	---
10	121	92	87	85	85	78	95	55	108	82	91	---
11	121	91	87	80	86	82	97	53	111	81	91	---
12	107	92	87	76	86	82	95	52	118	81	92	---
13	102	92	85	77	86	83	94	50	130	83	92	---
14	98	91	85	78	86	83	94	48	147	83	92	---
15	97	90	85	79	85	83	93	47	163	83	92	---
16	95	90	85	79	83	83	89	45	177	83	92	---
17	91	89	85	79	81	82	85	43	188	84	91	---
18	92	90	87	78	83	82	83	42	195	86	92	---
19	89	90	89	79	85	82	83	40	203	85	89	---
20	90	89	91	81	85	83	83	38	199	86	89	---
21	89	89	92	81	85	80	81	35	190	87	90	---
22	90	89	90	80	86	79	78	33	184	86	90	---
23	90	84	86	83	86	76	77	31	177	86	92	---
24	90	88	86	87	86	76	74	31	175	87	91	---
25	91	88	84	89	86	78	71	31	167	88	90	---
26	92	89	82	89	86	79	71	30	166	89	89	---
27	92	94	83	89	85	78	81	30	160	89	89	---
28	92	99	85	88	83	79	80	30	162	88	91	---
29	92	97	85	88	---	79	70	29	165	88	92	---
30	92	92	85	87	---	78	65	28	158	89	93	---
31	92	---	87	85	---	78	---	24	---	90	94	---

10396000 DONNER UND BLITZEN RIVER NEAR FRENCHGLEN, OR--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.5	10.5	9.5	6.0	---	---	---	---	---	---		
2	12.5	9.0	12.0	6.0	---	---	---	---	---	---		
3	14.5	7.5	11.0	5.0	---	---	---	---	---	---		
4	13.5	6.0	10.0	4.5	---	---	---	---	---	---		
5	14.0	6.0	10.0	4.0	---	---	---	---	---	---		
6	15.0	7.5	10.0	4.5	---	---	---	---	---	---		
7	15.0	7.0	9.0	5.0	---	---	0.0	0.0	---	---		
8	16.5	7.5	8.5	4.0	---	---	0.0	0.0	---	---		
9	16.5	8.5	8.5	3.5	---	---	0.0	0.0	5.5	1.0		
10	16.0	8.5	8.5	3.0	---	---	0.0	0.0	7.0	1.0		
11	15.0	8.0	7.0	3.0	---	---	0.0	0.0	6.5	1.0		
12	14.0	6.0	7.5	2.0	---	---	0.0	0.0	8.5	0.5		
13	14.0	6.0	6.0	0.5	---	---	0.0	0.0	---	---		
14	14.0	6.0	7.0	3.5	---	---	0.0	0.0	---	---		
15	13.0	5.5	8.0	4.0	---	---	0.0	0.0	---	---		
16	12.0	4.5	9.5	5.5	---	---	0.0	0.0	---	---		
17	11.0	4.5	10.0	5.0	---	---	0.0	0.0	---	---		
18	9.5	2.5	9.0	4.0	---	---	---	---	---	---		
19	9.5	2.0	6.5	2.5	---	---	---	---	---	---		
20	9.5	1.5	5.5	---	0.0	0.0	---	---	---	---		
21	10.0	2.0	5.0	1.0	0.0	0.0	---	---	---	---		
22	10.0	3.5	6.0	1.5	0.0	0.0	---	---	---	---		
23	10.0	4.0	---	---	---	---	---	---	---	---		
24	9.0	3.5	---	---	---	---	---	0.0	---	---		
25	9.0	4.5	---	---	---	---	0.0	0.0	---	---		
26	10.0	4.0	---	---	---	---	0.0	0.0	---	---		
27	9.0	2.5	---	---	---	---	0.0	0.0	---	---		
28	9.0	2.0	---	---	---	---	0.0	0.0	---	---		
29	7.5	3.5	---	---	---	---	0.0	0.0	---	---		
30	10.5	5.0	---	---	---	---	0.0	0.0	---	---		
31	9.0	5.0	---	---	---	---	0.0	0.0	---	---		
MONTH	16.5	1.5	12.0	0.5	---	---	0.0	0.0	8.5	0.5		

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1					14.0	---	22.0	16.5	27.5	16.0	22.5	10.0
2					12.5	6.0	22.5	16.0	25.0	16.5	23.0	12.0
3					13.5	8.5	20.5	14.5	26.0	16.0	24.0	12.0
4					14.5	9.0	19.5	13.0	23.5	15.5	25.0	13.0
5					16.5	9.0	21.5	11.0	25.5	15.0	26.0	14.5
6					15.5	10.5	22.5	11.5	25.0	15.0	26.0	14.5
7					15.0	9.5	24.0	12.5	19.5	15.5	25.0	13.5
8					14.5	9.5	26.0	14.0	25.0	12.0	22.0	12.0
9					14.0	11.0	22.0	15.0	25.5	13.5	21.5	9.0
10					16.0	10.5	25.0	12.5	26.0	14.0	23.0	11.0
11					15.5	12.0	25.5	13.0	27.0	14.5	22.5	11.5
12					15.0	11.0	25.5	15.5	27.5	15.5	22.0	11.0
13					16.0	12.0	25.5	13.0	25.5	16.0	22.0	10.5
14					15.0	11.5	26.5	13.5	25.5	16.5	22.0	13.0
15					18.0	11.5	27.5	15.0	25.0	15.0	20.5	12.5
16					19.5	12.5	27.0	15.5	27.0	14.5	14.0	10.0
17					18.0	13.5	27.0	15.5	22.5	16.5	14.5	8.0
18					18.5	13.0	26.5	16.0	26.5	15.5	18.0	9.5
19					17.5	14.0	26.0	16.0	25.5	15.5	14.0	11.0
20					17.5	12.5	28.0	16.0	27.5	16.5	15.0	9.5
21					21.5	12.5	26.0	15.5	26.0	17.5	15.5	8.0
22					22.5	14.5	25.5	17.0	26.0	17.0	14.5	6.0
23					23.5	15.0	24.0	16.0	25.5	14.0	11.0	5.5
24					24.5	15.5	24.0	16.5	18.0	15.0	16.5	8.5
25					25.5	16.0	24.0	16.0	16.0	13.5	18.5	10.0
26					25.0	16.5	27.5	15.0	15.0	12.0	18.5	9.5
27					25.0	16.0	25.0	16.0	15.0	10.0	17.0	9.0
28					25.0	14.5	27.0	15.0	18.5	11.0	14.0	11.0
29					25.0	14.5	26.5	14.0	23.0	13.0	13.0	9.0
30					23.5	14.5	27.0	14.0	20.5	12.5	11.5	7.0
31					---	---	28.5	14.5	20.5	10.5	---	---
MONTH					25.5	6.0	28.5	11.0	27.5	10.0	26.0	5.5

10401500 DONNER UND BLITZEN RIVER NEAR VOLTAGE, OR

LOCATION.--Lat 43°15'05", long 118°50'42", in SW¼ sec.2, T.27 S., R.31 E., Harney County, Hydrologic Unit 17120003, in Malheur National Wildlife Refuge on right bank just downstream from Sodhouse diversion dam, 1.2 mi (1.9 km) southwest of refuge headquarters, and 2.8 mi (4.5 km) southwest of Voltage.

DRAINAGE AREA.--760 mi^2 (1,970 km^2), approximately.

PERIOD OF RECORD.--February 1938 to September 1946, March 1972 to September 1977 (discontinued). Records for April 1916 to June 1919, published in WSP 440, 480, and 510, and March 1921 to June 1922, published in WSP 530 and 550, at site 1.5 mi (2.4 km) downstream, including diversions and overflow through 16 culverts crossing Sodhouse Lane, have been found to be in error and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 4,093.58 ft (1,247.723 m) above mean sea level (levels by Fish and Wildlife Service). Prior to June 16, 1939, nonrecording gage at site 30 ft (9 m) downstream, and Mar. 2 to Sept. 30, 1972, water-stage recorder at present site at datum 4.00 ft (1.219 m) higher, Oct. 1, 1972, to Mar. 4, 1977, water-stage recorder at present site at datum 3.00 ft (0.914 m) higher.

REMARKS.--Records good except those for period of no gage-height record and winter periods, which are fair. Some regulation by diversion dams. Many diversions above station for irrigation of lands above and below station.

AVERAGE DISCHARGE.--10 years (water years 1939-43, 1973-77), 84.6 ft^3/s (2.396 m^3/s), 61,290 acre-ft/yr (75.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 653 ft^3/s (18.5 m^3/s) Mar. 5, 1972, gage height, 6.30 ft (1.920 m), datum then in use; maximum gage height, 7.26 ft (2.212 m) Jan. 30, 1942, datum then in use; little or no flow at times June to August 1918 at site 1.5 mi (2.4 km) downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 209 ft^3/s (5.92 m^3/s) Sept. 26, gage height, 6.55 ft (1.996 m); minimum, 3.1 ft^3/s (0.088 m^3/s) July 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	56	64	78	54	20	5.9	7.8	9.9	14	3.4	4.1
2	94	56	77	67	49	20	5.8	7.8	14	14	3.4	4.0
3	87	54	78	64	50	15	5.5	7.6	25	14	3.5	4.1
4	85	54	79	60	46	13	5.3	6.6	21	14	3.6	4.3
5	83	54	84	62	47	9.3	5.3	6.3	32	13	3.7	4.5
6	95	54	82	54	50	7.8	5.2	6.5	41	12	3.8	4.6
7	86	53	74	40	46	7.6	4.9	6.6	38	12	3.9	4.7
8	83	52	74	43	48	8.9	4.6	7.0	39	12	3.8	4.8
9	82	52	76	46	49	54	4.7	7.1	58	12	3.9	4.8
10	81	53	70	50	50	57	4.8	6.9	39	11	3.9	5.1
11	78	53	67	54	47	52	5.2	7.0	30	9.1	3.9	5.2
12	77	53	71	60	48	56	5.7	10	27	3.9	4.0	5.6
13	77	52	72	58	52	49	6.3	18	22	3.6	4.1	5.9
14	86	56	68	58	35	43	6.5	21	15	3.4	4.1	6.8
15	86	56	64	52	20	30	6.5	23	13	3.1	4.2	8.8
16	83	62	60	56	15	28	6.2	23	12	3.2	4.2	16
17	90	60	56	60	18	29	6.3	23	13	3.3	4.3	17
18	91	58	52	62	24	28	6.2	22	13	3.4	4.3	13
19	65	57	50	62	34	27	5.6	22	13	3.4	4.3	11
20	54	56	48	56	47	26	5.8	22	12	3.4	4.3	11
21	56	58	47	60	48	26	6.0	22	12	3.5	4.3	12
22	56	57	52	56	44	15	6.4	17	13	3.5	4.4	12
23	54	56	59	56	45	6.6	7.3	11	13	3.5	4.4	13
24	54	56	62	56	39	6.2	7.6	12	13	3.5	4.5	13
25	56	58	71	52	17	6.4	7.5	13	14	3.6	4.5	11
26	56	56	71	48	17	6.3	7.5	16	14	3.4	4.5	33
27	54	47	80	40	27	6.1	7.5	16	13	3.3	4.5	15
28	56	40	92	44	31	5.9	7.3	16	13	3.3	4.5	17
29	56	45	94	44	---	6.0	7.3	13	14	3.4	4.4	35
30	56	54	87	46	---	5.9	7.4	12	14	3.4	4.3	27
31	54	---	77	50	---	5.7	---	11	---	3.5	4.1	---
TOTAL	2267	1628	2158	1694	1097	676.7	184.1	420.2	619.9	205.7	127.0	333.3
MEAN	73.1	54.3	69.6	54.6	39.2	21.8	6.14	13.6	20.7	6.64	4.10	11.1
MAX	96	62	94	78	54	57	7.6	23	58	14	4.5	35
MIN	54	40	47	40	15	5.7	4.6	6.3	9.9	3.1	3.4	4.0
AC-FT	4500	3230	4280	3360	2180	1340	365	833	1230	408	252	661

CAL YR 1976 TOTAL 32111.0 MEAN 87.7 MAX 411 MIN 10 AC-FT 63690
WTR YR 1977 TOTAL 11410.9 MEAN 31.3 MAX 96 MIN 3.1 AC-FT 22630

NOTE.--No gage-height record Oct. 20 to Dec. 1.

10401800 MALHEUR LAKE NEAR VOLTAGE, OR

LOCATION.--Lat 43°17'30", long 118°49'05", in NE¼NE¼ sec.25, T.26 S., R.31 E., Harney County, Hydrologic Unit 17120001, in Malheur National Wildlife Refuge, 2.0 mi (3.2 km) north of Voltage.

DRAINAGE AREA.--2,150 mi^2 (5,570 km^2), approximately.

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,088.52 ft (1,246.181 m) above mean sea level. Gage readings have been reduced to elevations above mean sea level.

REMARKS.--Many diversions on inflow streams for irrigation of many thousands of acres above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 4,093.62 ft (1,247.735 m) Apr. 3, 1976; minimum recorded, 4,090.60 ft (1,246.815 m) Oct. 2, 3, 16, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation observed since 1938, 4,095.39 ft (1,248.275 m), occurred in 1952, from records of Malheur National Wildlife Refuge for staff gage in channel of Donner und Blitzen River; entire bed of lake dry September 1934.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 4,093.19 ft (1,247.604 m) Feb. 5, 7, 9-11, 14; minimum recorded, 4,090.60 ft (1,246.815 m) Oct. 2, 3, 16.

ELEVATION, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4090.65		4092.78	4092.95	4093.17	---	4093.06	4092.70	4092.60	4092.19	4091.62	---
2	4090.60		4092.79	4092.97	4093.17	---	4093.03	4092.68	4092.59	4092.20	4091.58	---
3	4090.62		4092.79	4092.98	4093.17	---	4093.01	4092.68	4092.54	4092.17	4091.58	---
4	4090.64		4092.80	4092.99	4093.18	---	4093.03	4092.68	4092.57	4092.16	4091.58	---
5	4090.64		4092.80	4092.99	4093.19	---	4093.04	4092.71	4092.52	4092.14	4091.54	---
6	4090.65		4092.82	4092.99	4093.18	---	4093.02	4092.75	4092.55	4092.11	4091.56	---
7	4090.65		4092.82	4093.01	4093.19	---	4093.00	4092.73	4092.51	4092.10	4091.51	---
8	4090.65		4092.82	4093.02	4093.18	---	4092.92	4092.76	4092.52	4092.05	4091.51	4091.04
9	4090.64		4092.82	4093.03	4093.19	4093.13	4092.98	4092.75	4092.50	4092.04	4091.52	4091.03
10	4090.63		4092.83	4093.04	4093.19	4093.13	4092.96	4092.75	4092.41	4092.02	4091.50	4091.02
11	4090.63		4092.84	4093.05	4093.19	4093.14	4092.96	4092.79	4092.41	4092.00	4091.47	4090.99
12	4090.64		4092.84	4093.05	4093.18	4093.14	4092.96	4092.77	4092.51	4091.97	4091.43	4090.97
13	4090.63		4092.85	4093.06	4093.18	4093.13	4092.95	4092.76	4092.52	4091.96	4091.39	4091.02
14	4090.64		4092.85	4093.07	4093.19	4093.14	4092.92	4092.75	4092.51	4091.95	4091.43	4091.05
15	4090.64		4092.85	4093.07	4093.18	4093.14	4092.93	4092.72	4092.51	4091.93	4091.36	4091.07
16	4090.62		4092.86	4093.08	4093.18	4093.14	4092.91	4092.69	4092.52	4091.88	4091.38	4091.07
17	---		4092.87	4093.09	4093.18	4093.11	4092.88	4092.68	4092.48	4091.85	4091.33	4091.04
18	---		4092.87	4093.10	4093.17	4093.08	4092.87	4092.69	4092.50	4091.84	4091.33	4091.02
19	---		4092.87	4093.10	4093.17	4093.07	4092.86	4092.69	4092.40	4091.84	4091.31	4090.99
20	---		4092.89	4093.10	4093.17	4093.07	4092.86	4092.69	4092.37	4091.80	4091.28	4090.99
21	---		4092.89	4093.11	4093.16	4093.10	4092.84	4092.68	4092.40	4091.79	4091.28	4091.02
22	---		4092.89	4093.11	---	4093.09	4092.83	4092.63	4092.39	4091.79	---	4091.00
23	---		4092.89	4093.12	---	4093.01	4092.84	4092.63	4092.37	4091.75	---	4091.00
24	---		4092.90	4093.13	---	4093.08	4092.81	4092.65	4092.35	4091.77	---	4091.02
25	---		4092.90	4093.13	---	4093.09	4092.74	4092.61	4092.32	4091.77	---	4091.01
26	---		4092.90	4093.14	---	4093.04	4092.81	4092.63	4092.29	4091.75	---	4091.07
27	---		4092.90	4093.14	---	4092.96	4092.79	4092.64	4092.27	4091.72	---	4091.07
28	---		4092.91	4093.15	---	4092.96	4092.77	4092.67	4092.25	4091.74	---	4091.07
29	---		4092.92	4093.15	---	4093.02	4092.77	4092.63	4092.23	4091.69	---	4091.07
30	---		4092.92	4093.16	---	4093.05	4092.72	4092.62	4092.21	4091.67	---	4091.06
31	---		4092.93	4093.17	---	4093.00	---	4092.58	---	4091.64	---	---
MEAN	---	---	4092.86	4093.07	---	---	4092.90	4092.69	4092.44	4091.91	---	---
MAX	---	---	4092.93	4093.17	---	---	4093.06	4092.79	4092.60	4092.20	---	---
MIN	---	---	4092.78	4092.95	---	---	4092.72	4092.58	4092.21	4091.64	---	---

10401830 MALHEUR LAKE AT BREAK IN COLE ISLAND DIKE NEAR VOLTAGE, OR

LOCATION.--Lat 43°19'57", long 118°43'58", in NW¼ sec.11, T.26 S., R.32 E., Harney County, Hydrologic Unit 17120001, in Malheur National Wildlife Refuge, at southernmost break in Cole Island Dike on Malheur Lake, 6.0 mi (9.7 km) northeast of Voltage.

DRAINAGE AREA.--2,150 mi^2 (5,570 km^2), approximately.

PERIOD OF RECORD.--March 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,090.23 ft (1,246.702 m) above mean sea level. Gage readings have been reduced to elevations above mean sea level.

REMARKS.--Many diversions on inflow streams for irrigation of many thousands of acres above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 4,094.58 ft (1,248.028 m) Apr. 19, 1972; minimum observed, 4,090.73 ft (1,246.855 m) Oct. 17, 1973. Minimum elevations have been less than minimum observed at times during period of record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation observed since 1938, 4,095.39 ft (1,248.275 m), occurred in 1952, from records of Malheur National Wildlife Refuge for staff gage in channel of Donner und Blitzen River; entire bed of lake dry September 1934.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 4,093.33 ft (1,247.647 m) Mar. 27; minimum recorded, 4,091.38 ft (1,247.053 m) Aug. 9, but may have been less during period Aug. 10 to Sept. 30.

ELEVATION, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	4092.62	4092.79	4092.91	4093.06	4093.07	4093.07	4092.74	4092.66	4092.22	4091.63	
2	---	4092.63	4092.79	4092.95	4093.06	4093.07	4093.05	4092.72	4092.55	4092.19	4091.61	
3	---	4092.63	4092.80	4092.96	4093.06	4093.08	4093.03	4092.75	4092.56	4092.18	4091.59	
4	---	4092.63	4092.80	4092.96	4093.06	4093.08	4093.03	4092.70	4092.54	4092.14	4091.57	
5	---	4092.64	4092.81	4092.95	4093.06	4093.09	4093.02	4092.69	4092.52	4092.14	4091.55	
6	---	4092.65	4092.81	4092.96	4093.06	4093.10	4092.98	4092.66	4092.51	4092.11	4091.53	
7	---	4092.65	4092.82	4092.96	4093.06	4093.10	4092.97	4092.71	4092.51	4092.09	4091.53	
8	---	4092.66	4092.83	4092.97	4093.06	4093.10	4093.01	4092.72	4092.49	4092.11	4091.50	
9	---	4092.66	4092.83	4092.97	4093.07	4093.10	4092.93	4092.75	4092.48	4092.07	---	
10	---	4092.66	4092.83	4092.98	4093.07	4093.09	4092.92	4092.77	4092.47	4092.05	---	
11	---	4092.66	4092.83	4092.98	4093.07	4093.10	4092.91	4092.78	4092.45	4092.03	---	
12	---	4092.66	4092.84	4092.99	4093.08	4093.10	4092.91	4092.78	4092.45	4092.06	---	
13	---	4092.66	4092.84	4093.01	4093.08	4093.10	4092.91	4092.80	4092.48	4091.97	---	
14	---	4092.69	4092.85	4093.01	4093.09	4093.11	4092.89	4092.76	4092.49	4091.96	---	
15	---	4092.69	4092.85	4093.02	4093.09	4093.11	4092.89	4092.76	4092.48	4091.95	---	
16	---	4092.69	4092.86	4093.03	4093.09	4093.11	4092.88	4092.74	4092.44	4091.91	---	
17	---	4092.69	4092.86	4093.03	4093.08	4093.10	4092.86	4092.73	4092.45	4091.90	---	
18	---	4092.71	4092.86	4093.04	4093.08	4093.10	4092.84	4092.71	4092.43	4091.86	---	
19	---	4092.70	4092.86	4093.04	4093.08	4093.08	4092.83	4092.70	4092.43	4091.80	---	
20	4092.58	4092.71	4092.87	4093.05	4093.08	4093.09	4092.82	4092.70	4092.41	4091.80	---	
21	4092.58	4092.71	4092.87	4093.05	4093.08	4093.10	4092.82	4092.67	4092.38	4091.78	---	
22	4092.59	4092.71	4092.87	4093.05	4093.07	4093.11	4092.82	4092.69	4092.36	4091.75	---	
23	4092.58	4092.72	4092.88	4093.05	4093.07	4093.15	4092.80	4092.69	4092.34	4091.77	---	
24	4092.61	4092.73	4092.88	4093.06	4093.07	4093.09	4092.81	4092.66	4092.31	4091.75	---	
25	4092.61	4092.71	4092.88	4093.07	4093.07	4093.09	4092.85	4092.67	4092.30	4091.76	---	
26	4092.59	---	4092.88	4093.06	4093.06	4093.09	4092.76	4092.69	4092.27	4091.78	---	
27	4092.60	---	4092.90	4093.06	4093.07	4093.20	4092.75	4092.67	4092.25	4091.75	---	
28	4092.60	---	4092.90	4093.06	4093.08	4093.06	4092.77	4092.66	4092.23	4091.73	---	
29	4092.60	---	4092.91	4093.06	---	4093.04	4092.74	4092.64	4092.20	4091.71	---	
30	4092.61	---	4092.91	4093.06	---	4093.05	4092.74	4092.63	4092.18	4091.68	---	
31	---	---	4092.91	4093.06	---	4093.06	---	4092.62	---	4091.65	---	
MEAN	---	---	4092.85	4093.01	4093.07	4093.09	4092.89	4092.71	4092.42	4091.92	---	---
MAX	---	---	4092.91	4093.07	4093.09	4093.20	4093.07	4092.80	4092.66	4092.22	---	---
MIN	---	---	4092.79	4092.91	4093.06	4093.04	4092.74	4092.62	4092.18	4091.65	---	---

10402000 MALHEUR LAKE OUTLET AT NARROWS, OR

LOCATION.--Lat 43°16'55", long 118°57'50", in SE¼ sec.26, T.26 S., R.30 E., Harney County, Hydrologic Unit 17120001, on highway bridge at The Narrows.

DRAINAGE AREA.--2,150 mi^2 (5,570 km^2), approximately.

PERIOD OF RECORD.--May 1903 to July 1906, September 1909, March to September 1911, April to June 1912, April to August 1913, June 1914, gage heights only. March to July 1916, March 1972, September 1976, October 1976 to current year (monthly estimated discharge only).

REMARKS.--Records poor. Natural storage in Malheur Lake. Diversions for irrigation of thousands of acres above station. Outflow from Malheur Lake flows into Mud Lake when full spills over a sand reef, or is drained, into Harney Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 242 ft^3/s (6.85 m^3/s) Apr. 23, 1972; no flow for long periods each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage observed, 6.4 ft (1.95 m) May 12-16, 1904 (datum then in use, discharge not determined). A discharge of 841 ft^3/s (23.8 m^3/s) was measured May 5, 1943, gage height, 6.16 ft (1.878 m).

	Runoff in acre-feet
October 1976	0
November	0
December	0
CAL YR 1976	3,810
January 1977	0
February	0
March	0
April	0
May	0
June	10
July	10
August	0
September	0
WTR YR 1977	20

10403000 SILVER CREEK NEAR RILEY, OR

LOCATION.--Lat 43°41'30", long 119°39'30", in E½ sec.1, T.22 S., R.25 E., Harney County, Hydrologic Unit 17120004, on right bank 0.4 mi (0.6 km) downstream from Rough Creek, 1.4 mi (2.3 km) upstream from Nicoll Creek, and 14 mi (23 km) northwest of Riley.

DRAINAGE AREA.--228 mi^2 (591 km^2).

PERIOD OF RECORD.--June 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,450 ft (1,360 m), by barometer.

REMARKS.--Records good except those for winter periods, which are fair. No regulation. Diversions for irrigation above station.

AVERAGE DISCHARGE.--26 years, 40.8 ft^3/s (1.155 m^3/s), 29,560 acre-ft/yr (36.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,810 ft^3/s (51.3 m^3/s) Dec. 22, 1964, gage height, 7.49 ft (2.283 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 304 ft^3/s (8.61 m^3/s) June 8, gage height, 3.56 ft (1.085 m), no peak above base of 350 ft^3/s (9.91 m^3/s); minimum, 0.37 ft^3/s (0.010 m^3/s) Aug. 21, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	4.8	3.8	2.9	1.6	5.4	7.3	8.2	7.6	6.8	1.5	1.1
2	5.0	4.8	5.2	3.7	1.5	5.4	7.3	8.8	7.6	7.1	1.4	1.1
3	6.3	4.6	4.8	3.6	1.5	5.4	7.3	9.4	7.3	6.3	1.3	1.0
4	5.2	4.4	4.4	3.2	1.5	5.6	9.4	9.4	7.3	6.1	1.1	.90
5	4.8	4.4	4.1	2.5	1.6	5.9	14	8.8	6.8	6.8	1.0	.85
6	4.6	4.4	3.8	2.0	1.9	5.9	21	8.5	6.6	6.3	1.0	.70
7	4.4	4.4	4.0	2.1	2.1	5.9	36	8.8	16	5.4	1.1	.65
8	4.4	4.2	4.3	1.9	2.3	6.1	37	9.7	232	4.8	1.4	.56
9	4.2	4.2	4.6	1.8	2.5	6.1	28	9.4	156	4.6	1.3	.56
10	4.2	4.2	3.5	1.7	2.7	5.9	23	12	104	4.4	1.1	.52
11	4.2	4.0	3.7	1.6	2.9	6.6	23	16	75	4.2	.90	.56
12	4.2	4.2	3.5	1.6	3.1	5.4	22	17	60	3.8	.80	.65
13	4.2	4.6	3.7	1.5	3.4	5.0	22	14	48	3.5	.75	.65
14	4.0	4.2	3.4	1.6	3.7	5.6	19	12	42	3.3	.75	.65
15	4.0	5.4	3.5	1.4	4.0	5.9	17	11	35	2.8	.96	.90
16	4.0	5.6	3.4	1.5	4.4	5.8	18	11	30	2.6	.90	1.0
17	4.0	5.4	3.3	1.6	5.1	5.4	16	11	26	2.3	.85	1.5
18	3.8	5.0	3.1	1.8	5.6	5.0	14	11	23	2.4	.80	1.6
19	3.8	4.6	3.1	1.7	5.9	6.6	13	10	21	2.4	.75	1.7
20	3.6	4.6	3.1	1.6	5.9	6.6	12	9.7	19	2.4	.61	1.6
21	3.8	4.0	3.1	1.7	6.3	6.6	12	9.1	17	2.2	.52	1.6
22	4.2	4.8	3.6	1.5	5.9	7.6	12	9.1	15	2.1	.61	1.5
23	4.2	5.0	4.0	1.4	5.6	7.9	11	10	13	2.2	.52	1.5
24	4.2	5.0	2.9	1.4	5.4	9.4	11	11	12	2.4	.65	2.1
25	4.6	3.8	3.6	1.3	5.4	10	10	9.7	11	4.6	1.4	2.4
26	4.8	2.7	3.8	1.2	5.4	8.5	10	9.4	9.7	4.6	1.9	2.0
27	4.6	2.4	3.6	1.0	5.6	8.5	9.1	13	9.1	3.0	1.8	1.8
28	4.2	2.0	3.0	1.1	5.4	9.4	8.8	11	8.2	2.3	1.5	2.0
29	4.6	2.2	3.1	1.1	---	8.5	8.5	9.4	7.6	1.9	1.4	2.3
30	5.0	2.9	2.9	1.2	---	8.5	8.2	8.8	7.1	1.7	1.2	2.3
31	4.8	---	2.7	1.5	---	7.1	---	8.2	---	1.6	1.1	---
TOTAL	135.9	126.8	112.6	55.7	108.2	207.5	466.9	324.4	1039.9	116.9	32.87	38.25
MEAN	4.38	4.23	3.63	1.80	3.86	6.69	15.6	10.5	34.7	3.77	1.06	1.28
MAX	6.3	5.6	5.2	3.7	6.3	10	37	17	232	7.1	1.9	2.4
MIN	3.6	2.0	2.7	1.0	1.5	5.0	7.3	8.2	6.6	1.6	.52	.52
AC-FT	270	252	223	110	215	412	926	643	2060	232	65	76

CAL YR 1976 TOTAL 13336.50 MEAN 36.4 MAX 466 MIN 2.0 AC-FT 26450
WTR YR 1977 TOTAL 2765.92 MEAN 7.58 MAX 232 MIN .52 AC-FT 5490

NOTE.--No gage-height record Jan. 9 to Feb. 17.

10406500 TROUT CREEK NEAR DENIO, NV

LOCATION.--Lat 42°09'20", long 118°27'30", in SW¼ sec.26, T.39 S., R.36 E., Harney County, Hydrologic Unit 17120009, on right bank 0.4 mi (0.6 km) upstream from bridge at mouth of canyon, 5 mi (8 km) east of Trout Creek Ranch, and 14 mi (23 km) northeast of Denio.

DRAINAGE AREA.--88 mi^2 (228 km^2), approximately.

PERIOD OF RECORD.--March 1911 to March 1912, April 1922 to November 1923, March 1925 to September 1931 (irrigation seasons only), April 1932 to current year. Prior to Oct. 1, 1961, published as "near Denio, Oreg."

REVISED RECORDS.--WSP 1564: 1932, 1933-34(M), 1938(M). WSP 1714: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,351.52 ft (1,326.343 m) above mean sea level. Mar. 25, 1911, to Mar. 31, 1912, nonrecording gage at bridge 0.4 mi (0.6 km) downstream at different datum. Apr. 28, 1922, to June 14, 1932, water-stage recorder at site 10 ft (3 m) upstream at datum 0.50 ft (0.152 m) higher.

REMARKS.--Records good except those for winter periods, which are fair. No regulation. Diversions for irrigation above station.

AVERAGE DISCHARGE.--46 years (water years 1923, 1933-77), 15.3 ft^3/s (0.433 m^3/s), 11,080 acre-ft/yr (13.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 470 ft^3/s (13.3 m^3/s) Aug. 1, 1933, gage height, 5.26 ft (1.603 m), from rating curve extended above 230 ft^3/s (6.51 m^3/s); minimum observed, 0.10 ft^3/s (0.030 m^3/s) Aug. 4, 1930, Aug. 1, Sept. 12, 28, 1934. Probably no flow at times Sept. 1-19, 1931.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 6.0 ft (1.83 m), caused by cloudburst, probably occurred in 1924 or 1925.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 32 ft^3/s (0.91 m^3/s) Apr. 8, no peak above base of 50 ft^3/s (1.42 m^3/s); maximum gage height, 3.97 ft (1.210 m) Jan. 11, backwater from ice; minimum discharge, 0.42 ft^3/s (0.012 m^3/s) Aug. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	6.5	4.5	10	4.2	4.2	4.3	5.5	11	2.2	1.1	1.7
2	5.7	6.7	6.0	10	4.2	4.1	4.7	5.6	10	5.4	.99	1.6
3	6.3	6.7	6.8	11	4.2	4.0	5.4	5.8	9.2	6.1	1.2	1.5
4	6.1	6.7	6.8	10	4.4	4.4	6.1	5.5	8.9	4.7	1.9	1.4
5	6.1	6.7	6.8	9.0	4.6	4.4	7.0	7.1	8.5	3.7	.90	1.4
6	6.3	6.7	6.8	7.5	4.8	4.4	9.2	7.2	7.5	2.9	.79	1.3
7	6.5	6.5	6.8	6.2	5.0	4.9	11	6.8	7.0	2.4	2.1	1.2
8	6.3	6.5	5.0	6.0	5.3	5.3	15	5.9	7.2	2.1	.92	1.1
9	6.3	6.5	4.0	6.2	5.4	5.9	22	6.1	7.8	1.9	.67	1.4
10	6.1	6.5	3.3	6.5	5.4	5.7	12	7.7	6.7	2.0	.55	1.4
11	6.1	6.5	3.5	7.5	5.4	5.0	11	7.0	7.8	2.3	.70	1.4
12	6.1	6.5	4.5	7.7	5.5	4.5	9.6	6.6	6.8	2.5	.52	1.3
13	6.1	6.1	6.0	7.9	5.4	4.1	9.8	7.1	5.9	2.7	.50	1.3
14	6.1	6.7	8.0	8.1	5.3	4.1	7.5	7.1	5.9	2.8	.53	.95
15	6.1	6.7	8.0	8.4	5.0	4.1	7.5	7.8	5.9	2.3	.59	1.2
16	6.1	7.0	8.2	8.2	5.1	4.1	9.6	9.9	5.5	2.0	.56	1.7
17	6.3	7.3	8.4	7.8	4.8	4.1	16	11	5.0	1.7	.55	2.6
18	6.3	7.3	9.0	7.8	4.7	4.1	9.6	11	4.4	1.9	.63	2.3
19	6.3	7.0	9.5	7.4	4.6	4.1	6.9	9.6	4.0	2.1	.66	2.1
20	6.5	7.0	10	7.0	4.2	4.4	6.7	9.8	4.5	2.7	.63	2.4
21	6.5	7.0	10	6.2	4.0	4.8	6.7	9.6	4.3	2.9	.64	2.8
22	7.0	7.0	10	5.6	3.8	4.8	7.6	9.9	3.9	2.9	.63	2.7
23	7.5	6.7	10	5.2	3.4	4.8	8.2	13	3.3	2.8	.61	2.7
24	6.3	6.5	10	4.7	3.7	4.8	9.8	13	3.1	2.6	.72	2.8
25	6.3	6.0	11	4.5	4.0	4.8	11	13	2.8	2.4	2.2	2.9
26	6.3	5.0	12	4.4	4.3	4.5	7.1	13	2.7	2.3	3.7	2.7
27	6.3	4.0	12	4.2	4.5	4.3	6.3	15	3.0	2.1	2.8	2.6
28	6.3	3.4	11	4.1	4.4	4.3	5.6	14	2.5	1.6	2.3	2.4
29	6.3	3.4	11	4.1	---	4.3	5.9	13	2.3	.98	2.0	3.1
30	6.1	3.4	10	4.0	---	4.3	5.9	12	2.4	1.3	1.8	3.3
31	5.9	---	9.5	4.1	---	4.3	---	11	---	1.2	1.8	---
TOTAL	194.0	186.5	248.4	211.3	129.6	139.9	265.2	286.6	169.8	79.48	36.19	59.25
MEAN	6.26	6.22	8.01	6.82	4.63	4.51	8.84	9.25	5.66	2.56	1.17	1.98
MAX	7.5	7.3	12	11	5.5	5.9	22	15	11	6.1	3.7	3.3
MIN	5.5	3.4	3.3	4.0	3.4	4.0	4.3	5.5	2.3	.98	.50	.95
AC-FT	385	370	493	419	257	277	526	568	337	158	72	118

CAL YR 1976 TOTAL 6536.20 MEAN 17.9 MAX 130 MIN 3.3 AC-FT 12960
WTR YR 1977 TOTAL 2006.22 MEAN 5.50 MAX 22 MIN .50 AC-FT 3980

NOTE.--No gage-height record Dec. 18 to Feb. 13.

GOOSE LAKE BASIN

11339500 DREWS CREEK NEAR LAKEVIEW, OR

LOCATION.--Lat 42°07'10", long 120°34'45", in NW¼NE¼ sec.10, T.40 S., R.18 E., Lake County, Hydrologic Unit 18020001, on left bank 10 ft (3 m) upstream from bridge, 2.0 mi (3.2 km) downstream from Willow Creek, 2.7 mi (4.3 km) downstream from Drews Dam, and 13 mi (21 km) southwest of Lakeview.

DRAINAGE AREA.--212 mi² (549 km²).

PERIOD OF RECORD.--January 1909 to September 1930 (yearly estimate only for water year 1920), March 1931 to September 1936 (irrigation seasons only), April 1937 to September 1938, March 1939 to October 1941, February 1942, April 1942 to September 1952, February 1953 to current year. Monthly discharge only October 1921 to September 1925, published in WSP 1315-A. Published as Drew Creek near Lakeview October 1918 to September 1959.

REVISED RECORDS.--WSP 1565: 1909-10, 1913, 1918(M). WRD Oreg. 1974: 1972(M). WSP 1735: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,827.0 ft (1,471.27 m) above mean sea level (levels by Bureau of Reclamation). See WSP 1931 for history of changes prior to July 4, 1953.

REMARKS.--Records good. Record herein, except average discharge, not adjusted for diversion by North Drews Canal. Since 1912, flow regulated by Drews Reservoir, capacity, 62,550 acre-ft (77.1 hm³). Diversion for irrigation above station, and since March 1914, North Drews Canal has diverted above station for irrigation of lands west of Lakeview.

AVERAGE DISCHARGE.--46 years (water years 1913-30, 1938, 1940-41, 1947, 1954-77), 72.1 ft³/s (2.042 m³/s), 52,240 acre-ft/yr (64.4 hm³/yr), including diversion by North Drews Canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 3,000 ft³/s (85.0 m³/s) Mar. 1, 2, 1910, from rating curve extended above 1,200 ft³/s (34.0 m³/s); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 86 ft³/s (2.44 m³/s) June 13, 14; maximum gage height recorded, 2.48 ft (0.756 m) Feb. 1, backwater from ice; minimum discharge, 0.46 ft³/s (0.013 m³/s) Apr. 6, 14, May 2, but may have been less during periods of ice effect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	1.1	.96	.95	.72	.72	.58	.64	37	67	15	9.8
2	1.9	1.1	1.1	.95	.72	.72	.58	.74	48	64	15	9.3
3	1.4	.96	1.1	.95	.72	.72	.58	7.9	52	64	15	10
4	1.2	.96	1.1	.95	.72	.72	.58	7.9	57	63	14	10
5	1.4	.96	1.1	.95	.72	.72	.58	7.6	63	61	14	9.3
6	1.2	.83	1.1	.60	.72	.72	.58	7.6	69	61	14	6.8
7	1.1	.83	1.1	.60	.72	.72	.64	7.9	70	62	16	7.2
8	1.1	.70	1.1	.60	.72	.72	.64	7.9	74	49	15	6.1
9	.96	.70	1.1	.60	.72	.72	.83	8.8	78	41	14	5.0
10	.96	.70	1.1	.60	.72	.72	.64	6.5	79	41	15	5.3
11	.96	.70	1.1	.60	.72	.72	.58	1.4	79	41	13	5.0
12	.96	.83	1.1	.60	.72	.72	.52	1.2	79	40	12	5.3
13	.96	.83	1.1	.60	.72	.72	.52	1.1	81	40	11	5.3
14	.96	1.1	1.1	.60	.72	.72	.46	1.1	84	39	11	5.3
15	.83	1.1	.95	.60	.72	.72	.52	.96	82	35	11	5.8
16	.83	1.1	.95	.60	.72	.58	.58	.83	82	35	13	5.3
17	.83	1.1	.95	.60	.72	.58	.52	.70	75	35	13	6.1
18	.83	.96	.95	.60	.72	.58	.52	.70	73	31	13	6.1
19	.83	.96	.95	.60	.72	.58	.52	.70	73	27	13	5.0
20	.83	.83	.95	.60	.72	.58	.58	.70	72	27	12	3.8
21	.83	.83	.95	.60	.72	.58	.58	3.6	68	27	11	3.3
22	.83	.83	.95	.60	.72	.58	.58	4.1	67	26	10	3.0
23	.83	.83	.95	.60	.72	.58	.70	4.3	67	22	9.8	4.1
24	.83	.83	.95	.60	.72	.58	.83	4.6	66	19	11	7.2
25	1.1	.83	.95	.60	.72	.58	.96	8.8	64	20	11	6.8
26	1.1	.83	.95	.60	.72	.58	.96	15	62	21	11	5.0
27	.96	.83	.95	.60	.72	.58	.83	14	63	22	11	4.1
28	.96	.83	.95	.60	.72	.58	.58	14	63	22	11	3.8
29	1.1	.96	.95	.60	---	.58	.52	13	63	20	11	3.8
30	1.1	.96	.95	.60	---	.58	.52	23	64	15	11	3.3
31	1.1	---	.95	.60	---	.58	---	36	---	15	10	---
TOTAL	54.78	26.91	31.41	20.35	20.16	20.08	18.61	213.27	2054	1152	386.8	178.2
MEAN	1.77	.90	1.01	.66	.72	.65	.62	6.88	68.5	37.2	12.5	5.94
MAX	24	1.1	1.1	.95	.72	.72	.96	36	84	67	16	10
MIN	.83	.70	.95	.60	.72	.58	.46	.64	37	15	9.8	3.0
AC-FT	109	53	62	40	40	40	37	423	4070	2280	767	353
(†)	48	0	0	0	0	0	0	1,380	4,690	4,160	1,070	726
(‡)	a21,160	a21,580	a21,050	20,940	a21,430	22,070	a21,840	20,230	a10,480	a3,360	a1,470	a583

CAL YR 1976 TOTAL 8721.10 MEAN 23.8 MAX 96 MIN .70 AC-FT 17300 AC-FT† 21,350
WTR YR 1977 TOTAL 4176.57 MEAN 11.4 MAX 84 MIN .46 AC-FT 8280 AC-FT† 12,070

† Diversion, in acre-feet, North Drews Canal.
‡ Monthend contents in acre-feet, of Drews Reservoir.
a Contents interpolated.

11340500 COTTONWOOD CREEK NEAR LAKEVIEW, OR

LOCATION.--Lat 42°14'05", long 120°30'05", in N½ sec.32, T.38 S., R.19 E., Lake County, Hydrologic Unit 18020001, on right bank 0.7 mi (1.1 km) downstream from Cottonwood Dam and 9 mi (14 km) northwest of Lakeview.

DRAINAGE AREA.--32.9 mi^2 (85.2 km^2).

PERIOD OF RECORD.--November 1908 to September 1919, May 1924 to November 1935, March to December 1936, April to December 1937, April 1938 to November 1942, March to November 1943, March to October 1944, February to November 1945, March 1946 to current year. Monthly discharge only May 1924 to September 1925, published in WSP 1315-A.

REVISED RECORDS.--WSP 1565: 1910-11, 1919, 1929, 1937(M). WSP 1931: Drainage area (former site).

GAGE.--Water-stage recorder. Datum of gage is 4,949.37 ft (1,508.568 m) above mean sea level (levels by Bureau of Reclamation). Prior to June 1, 1919, and May 1, 1924, to June 3, 1932, nonrecording gage at several sites within 0.6 mi (1.0 km) upstream at different datums. June 1 to Sept. 30, 1919, and June 4, 1932, to Sept. 14, 1961, water-stage recorder at site 0.6 mi (1.0 km) upstream at different datums.

REMARKS.--Records good. Flow regulated since 1923 by Cottonwood Reservoir, capacity, 7,540 acre-ft (9.30 hm^3). Since October 1961, 240 acre-ft (295,900 m^3) unregulated storage in Cottonwood Meadows, 9 mi (14 km) upstream. Diversions for irrigation above station.

AVERAGE DISCHARGE.--56 years (water years 1910-19, 1925-35, 1939-42, 1947-77), 21.4 ft^3/s (0.606 m^3/s), 15,500 acr-ft/yr (19.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, between 500 and 1,000 ft^3/s (14.2 and 28.3 m^3/s) during period Apr. 26 to May 1, 1927, when natural flow, estimated as 170 ft^3/s (4.81 m^3/s), was augmented by water escaping from reservoir through break in outlet conduit near control gates; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 46 ft^3/s (1.30 m^3/s) June 10-12; maximum gage height, 2.05 ft (0.625 m) Dec. 20 (backwater from ice); no flow Aug. 4-23, Sept. 1-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	1.5	1.0	1.2	.72	.96	1.1	1.3	12	18	.01	.00
2	1.3	1.5	1.0	1.2	.72	.96	1.1	1.2	13	14	.01	.00
3	1.3	1.4	1.0	1.2	.72	.96	1.1	1.1	17	14	.01	.00
4	1.3	1.4	1.0	1.3	.72	.96	1.1	1.0	24	14	.00	.00
5	1.3	1.4	1.0	1.4	.72	.96	1.1	1.0	28	14	.00	.00
6	1.3	1.4	1.0	1.4	.72	.96	1.0	1.0	34	15	.00	.00
7	1.3	1.2	1.0	1.4	.72	.96	1.0	.96	38	16	.00	.00
8	1.3	1.2	1.0	1.4	.78	.96	1.0	.96	38	16	.00	.00
9	1.3	1.2	1.0	1.4	.78	.96	1.1	.96	38	14	.00	.00
10	1.3	1.2	1.0	1.2	.78	.96	1.0	.96	44	13	.00	.00
11	1.3	1.2	1.1	1.2	.78	.96	1.0	.96	46	12	.00	.00
12	1.3	1.2	1.1	1.2	.84	.96	1.0	.96	46	10	.00	.00
13	1.3	1.1	1.1	1.2	.84	.96	1.0	.90	44	8.9	.00	.00
14	1.3	1.0	1.1	1.2	.84	.96	1.0	.90	44	7.8	.00	.00
15	1.4	1.0	1.1	1.2	.84	.96	1.0	.90	44	6.4	.00	.00
16	1.4	1.0	1.1	1.2	.84	.96	1.0	.90	32	4.4	.00	.02
17	1.4	1.0	1.1	1.2	.84	.96	1.1	.90	28	2.4	.00	.02
18	1.4	1.0	1.1	.96	.84	.96	1.1	.90	28	.72	.00	.02
19	1.4	1.0	1.1	.90	.84	.96	1.1	.90	26	.31	.00	.04
20	1.4	1.0	1.2	.84	.84	.96	1.2	.84	29	.17	.00	.06
21	1.4	1.0	1.2	.84	.90	.96	1.2	.84	29	.13	.00	.15
22	1.4	.96	1.2	.78	.90	.96	1.2	.84	29	.07	.00	.25
23	1.4	.96	1.2	.76	.90	1.0	1.2	.84	28	.05	.00	.25
24	1.4	.96	1.2	.74	.90	1.0	1.2	.84	24	.03	.02	.34
25	1.4	1.0	1.2	.72	.90	1.0	1.3	.84	23	.02	.09	.31
26	1.4	1.0	1.2	.72	.90	1.0	1.3	.84	22	.02	.04	.22
27	1.3	1.0	1.3	.72	.90	1.0	1.3	.84	23	.01	.03	.19
28	1.3	1.0	1.3	.72	.96	1.0	1.3	.84	22	.01	.03	.22
29	1.4	1.0	1.3	.72	---	1.0	1.3	.78	22	.03	.02	.09
30	1.4	1.0	1.2	.72	---	1.0	1.3	.78	19	.01	.01	.15
31	1.4	---	1.2	.72	---	1.1	---	5.4	---	.01	.01	---
TOTAL	45.5	33.78	34.6	32.36	22.98	30.22	33.7	33.18	894	201.49	.28	2.33
MEAN	1.47	1.13	1.12	1.04	.82	.97	1.12	1.07	29.8	6.50	.009	.078
MAX	5.0	1.5	1.3	1.4	.96	1.1	1.3	5.4	46	18	.09	.34
MIN	1.3	.96	1.0	.72	.72	.96	1.0	.78	12	.01	.00	.00
AC-FT	90	67	69	64	46	60	67	66	1770	400	.6	4.6
(†)	[a]1,310	[a]1,330	[a]1,350	1,320	[a]1,430	[a]1,510	1,770	1,770	350	[a]0	0	0

CAL YR 1976 TOTAL 4198.38 MEAN 11.5 MAX 54 MIN .96 AC-FT 8330
WTR YR 1977 TOTAL 1364.42 MEAN 3.74 MAX 46 MIN .00 AC-FT 2710

† Month-end contents, in acre-feet, of Cottonwood Reservoir.
[a] Contents interpolated.

11492200 CRATER LAKE NEAR CRATER LAKE, OR
(Hydrologic bench-mark station)

LOCATION.--Lat 42°58'45", long 122°04'45", (unsurveyed) Crater Lake National Park and Vicinity Quadrangle, Klamath County, Hydrologic Unit 18010201, at boat harbor at end of trail in Cleetwood Cove and 6 mi (10 km) northeast of Crater Lake post office.

DRAINAGE AREA.--26.2 mi^2 (67.9 km^2), of which 20.5 mi^2 (53.1 km^2) is lake area at elevation 6,176 ft (1,882.4 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1961 to current year. 1878 to September 1961 (fragmentary records) available in files of Portland district office.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level, unadjusted. Prior to September 1961, nonrecording gage and various reference points used near old boat landing at abandoned trail (Eagle Cove) directly across Lake.

REMARKS.--Crater Lake occupies the caldera of prehistoric Mount Mazama. It has no visible inlet or outlet. Over a period of years precipitation and runoff from snow melt on the walls of the crater are offset by seepage and evaporation. Records of accumulated annual precipitation, collected at the north rim of Crater Lake as part of the operation of this station, are published annually in reports of the National Weather Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 6,179.34 ft (1,883.463 m) Mar. 25, 1975; minimum observed, 6,163.2 ft (1,878.54 m) Sept. 10, 1942.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 6,180.5 ft (1,883.82 m), average of several observations of line of crustose lichens made between 1916 and 1960; that stage may have occurred near the close of the 19th century. The occurrence of living pine trees slightly higher suggests that the lake has not been materially higher for several centuries.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 6,177.53 ft (1,882.911 m) Oct. 2; minimum, 6,173.62 ft (1,881.719 m) Sept. 23.

FLEVATION, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6177.50	6177.11	6176.63	6176.14	6175.73	6175.61	6175.56	6175.21	6175.17	6174.98	6174.45	6173.95
2	6177.52	6177.08	6176.63	6176.18	6175.71	6175.63	6175.54	6175.22	6175.16	6174.96	6174.45	6173.93
3	6177.52	6177.07	6176.61	6176.18	6175.70	6175.61	6175.54	6175.29	6175.15	6174.95	6174.42	6173.91
4	6177.48	6177.05	6176.58	6176.16	6175.68	6175.61	6175.52	6175.30	6175.15	6174.92	6174.39	6173.88
5	6177.46	6177.04	6176.57	6176.14	6175.67	6175.59	6175.50	6175.31	6175.15	6174.88	6174.38	6173.88
6	6177.45	6177.02	6176.55	6176.11	6175.65	6175.57	6175.49	6175.30	6175.14	6174.88	6174.34	6173.86
7	6177.43	6177.00	6176.54	6176.09	6175.63	6175.61	6175.47	6175.29	6175.14	6174.86	6174.34	6173.83
8	6177.41	6176.98	6176.56	6176.07	6175.61	6175.63	6175.48	6175.29	6175.13	6174.84	6174.32	6173.82
9	6177.40	6176.96	6176.54	6176.05	6175.61	6175.68	6175.46	6175.31	6175.13	6174.82	6174.29	6173.80
10	6177.38	6176.95	6176.52	6176.05	6175.59	6175.68	6175.45	6175.31	6175.18	6174.80	6174.27	6173.79
11	6177.36	6176.92	6176.50	6176.02	6175.58	6175.66	6175.43	6175.31	6175.18	6174.79	6174.27	6173.77
12	6177.34	6176.90	6176.48	6176.02	6175.56	6175.70	6175.42	6175.30	6175.20	6174.77	6174.24	6173.74
13	6177.32	6176.90	6176.46	6176.02	6175.55	6175.72	6175.42	6175.29	6175.20	6174.77	6174.22	6173.73
14	6177.30	6176.91	6176.45	6176.02	6175.54	6175.68	6175.40	6175.29	6175.18	6174.74	6174.20	6173.70
15	6177.29	6176.93	6176.42	6175.98	6175.52	6175.67	6175.39	6175.29	6175.17	6174.72	6174.18	6173.68
16	6177.25	6176.92	6176.39	6175.97	6175.49	6175.67	6175.38	6175.30	6175.16	6174.71	6174.16	6173.65
17	6177.23	6176.90	6176.38	6175.96	6175.48	6175.64	6175.36	6175.29	6175.15	6174.70	6174.15	6173.65
18	6177.21	6176.88	6176.36	6175.95	6175.46	6175.63	6175.34	6175.27	6175.13	6174.67	6174.13	6173.66
19	6177.18	6176.88	6176.33	6175.93	6175.43	6175.63	6175.33	6175.25	6175.13	6174.65	6174.11	6173.70
20	6177.17	6176.86	6176.32	6175.92	6175.43	6175.63	6175.32	6175.23	6175.11	6174.64	6174.09	6173.70
21	6177.16	6176.84	6176.30	6175.90	6175.50	6175.61	6175.29	6175.23	6175.11	6174.63	6174.08	6173.65
22	6177.13	6176.83	6176.29	6175.88	6175.52	6175.61	6175.27	6175.23	6175.08	6174.61	6174.06	6173.63
23	6177.11	6176.82	6176.27	6175.86	6175.55	6175.61	6175.25	6175.23	6175.07	6174.59	6174.05	6173.70
24	6177.15	6176.80	6176.25	6175.86	6175.54	6175.61	6175.24	6175.22	6175.06	6174.61	6174.06	6173.77
25	6177.15	6176.77	6176.24	6175.81	6175.54	6175.59	6175.25	6175.22	6175.05	6174.58	6174.08	6173.79
26	6177.13	6176.73	6176.25	6175.80	6175.54	6175.58	6175.23	6175.24	6175.04	6174.57	6174.06	6173.77
27	6177.11	6176.70	6176.22	6175.79	6175.54	6175.61	6175.23	6175.23	6175.02	6174.55	6174.04	6173.80
28	6177.11	6176.68	6176.20	6175.79	6175.61	6175.61	6175.21	6175.22	6174.99	6174.54	6174.04	6173.92
29	6177.09	6176.66	6176.16	6175.77	---	6175.59	6175.20	6175.20	6174.98	6174.50	6174.02	6173.90
30	6177.07	6176.65	6176.16	6175.75	---	6175.57	6175.20	6175.20	6174.95	6174.48	6173.99	6173.86
31	6177.11	---	6176.15	6175.75	---	6175.57	---	6175.18	---	6174.47	6173.97	---
MEAN	6177.27	6176.89	6176.40	6175.97	6175.57	6175.63	6175.37	6175.26	6175.12	6174.72	6174.19	6173.78
MAX	6177.52	6177.11	6176.63	6176.18	6175.73	6175.72	6175.56	6175.31	6175.20	6174.98	6174.45	6173.95
MIN	6177.07	6176.65	6176.15	6175.75	6175.43	6175.57	6175.20	6175.18	6174.95	6174.47	6173.97	6173.63

CAL YR 1976 MEAN 6178.11 MAX 6179.04 MIN 6176.15
WTR YR 1977 MEAN 6175.52 MAX 6177.52 MIN 6173.63

11492200 CRATER LAKE NEAR CRATER LAKE, OR--Continued
(Hydrologic bench-mark station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.
WATER TEMPERATURES: October 1963 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 18.0°C on several days in 1967; minimum, 0.5°C on several days in 1969.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 16.5°C Aug. 3-10, 21-24; minimum, 4.5°C many days during January to May.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TEMPERATURE (DEG C)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT 15...	1315	12.0	19	0	7.2	2.7	11	1.8	32	11
JUN 10...	1245	7.5	17	10	9.2	2.6	11	1.8	35	9.8
JUL 13...	1030	13.5	18	10	7.7	2.6	11	2.0	34	9.7
SEP 08...	1230	--	18	10	9.9	2.8	11	2.0	34	9.4

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)
OCT 15...	11	.1	.08	.00	29	3	.9	80	.11
JUN 10...	11	.1	.01	.01	34	5	.8	80	.11
JUL 13...	10	.1	--	.00	30	2	.9	78	.11
SEP 08...	12	.1	--	.01	36	8	.8	82	.11

11492200 CRATER LAKE NEAR CRATER LAKE, OR--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.0	12.0	9.5	9.5	7.0	7.0	5.5	5.5	4.5	4.5	5.0	5.0
2	12.0	12.0	9.5	9.0	7.0	7.0	5.5	5.5	4.5	4.5	5.0	5.0
3	12.0	12.0	9.0	9.0	7.0	7.0	5.5	5.5	4.5	4.5	5.0	5.0
4	12.0	12.0	9.0	9.0	7.0	7.0	5.5	5.5	4.5	4.5	5.0	5.0
5	12.0	12.0	9.0	9.0	7.0	7.0	5.5	5.5	4.5	4.5	5.0	5.0
6	12.0	12.0	9.0	9.0	7.0	7.0	5.5	5.0	4.5	4.5	5.0	5.0
7	12.0	12.0	9.0	9.0	7.0	7.0	5.0	5.0	4.5	4.5	5.0	5.0
8	12.0	12.0	9.0	9.0	7.0	7.0	5.0	5.0	4.5	4.5	5.0	5.0
9	12.0	12.0	9.0	9.0	7.0	7.0	5.0	5.0	4.5	4.5	5.0	5.0
10	12.0	12.0	9.0	9.0	7.0	6.5	5.0	5.0	4.5	4.5	5.0	5.0
11	12.0	12.0	9.0	9.0	6.5	6.5	5.0	5.0	4.5	4.5	5.0	5.0
12	12.0	12.0	9.0	9.0	6.5	6.5	5.0	5.0	5.0	4.5	5.0	5.0
13	12.0	12.0	9.0	9.0	6.5	6.5	5.0	5.0	5.0	5.0	5.0	5.0
14	12.0	12.0	9.0	8.5	6.5	6.5	5.0	4.5	5.0	5.0	5.0	5.0
15	12.0	11.5	8.5	8.5	6.5	6.5	4.5	4.5	5.0	5.0	5.0	5.0
16	11.5	11.5	8.5	8.5	6.5	6.5	4.5	4.5	5.0	5.0	5.0	4.5
17	11.5	11.5	8.5	8.5	6.5	6.5	4.5	4.5	5.0	5.0	4.5	4.5
18	11.5	11.5	8.5	8.5	6.5	6.0	4.5	4.5	5.0	5.0	4.5	4.5
19	11.5	11.0	8.5	8.0	6.0	6.0	4.5	4.5	5.0	5.0	4.5	4.5
20	11.0	11.0	8.0	8.0	6.0	6.0	4.5	4.5	5.0	5.0	4.5	4.5
21	11.0	11.0	8.0	8.0	6.0	6.0	4.5	4.5	5.0	5.0	4.5	4.5
22	11.0	11.0	8.0	8.0	6.0	6.0	4.5	4.5	5.0	5.0	4.5	4.5
23	11.0	11.0	8.0	8.0	6.0	6.0	4.5	4.5	5.0	5.0	4.5	4.5
24	11.0	10.5	8.0	8.0	6.0	6.0	4.5	4.5	5.0	5.0	4.5	4.5
25	10.5	10.0	8.0	8.0	6.0	6.0	4.5	4.5	5.0	5.0	4.5	4.5
26	10.0	10.0	8.0	8.0	6.0	6.0	4.5	4.5	5.0	5.0	4.5	4.5
27	10.0	9.5	8.0	7.0	6.0	5.5	4.5	4.5	5.0	5.0	4.5	4.5
28	9.5	9.5	7.0	7.0	5.5	5.5	4.5	4.5	5.0	5.0	4.5	4.5
29	9.5	9.5	7.0	7.0	5.5	5.5	4.5	4.5	---	---	4.5	4.5
30	9.5	9.5	7.0	7.0	5.5	5.5	4.5	4.5	---	---	4.5	4.5
31	9.5	9.5	---	---	5.5	5.5	4.5	4.5	---	---	4.5	4.5
MONTH	12.0	9.5	9.5	7.0	7.0	5.5	5.5	4.5	5.0	4.5	5.0	4.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4.5	4.5	4.5	4.5	6.0	5.5	12.0	11.5	15.0	15.0	13.5	13.5
2	4.5	4.5	4.5	4.5	6.0	6.0	13.0	12.0	15.5	15.0	13.5	13.5
3	4.5	4.5	4.5	4.5	6.0	6.0	13.0	12.0	16.5	15.5	13.5	13.5
4	4.5	4.5	4.5	4.5	6.0	6.0	12.0	12.0	16.5	16.0	13.5	13.5
5	4.5	4.5	4.5	4.5	6.0	6.0	12.0	12.0	16.5	16.0	14.0	13.5
6	4.5	4.5	4.5	4.5	6.0	6.0	12.0	12.0	16.5	16.0	14.0	13.5
7	4.5	4.5	4.5	4.5	6.0	6.0	12.0	12.0	16.5	16.0	14.0	13.5
8	4.5	4.5	4.5	4.5	6.0	6.0	13.0	12.0	16.5	16.0	14.0	14.0
9	4.5	4.5	4.5	4.5	6.5	6.0	13.0	12.0	16.5	16.0	14.0	14.0
10	4.5	4.5	4.5	4.5	8.0	6.5	13.0	13.0	16.5	16.0	14.0	14.0
11	4.5	4.5	4.5	4.5	8.0	7.0	13.0	13.0	16.0	15.5	14.0	14.0
12	4.5	4.5	4.5	4.5	7.0	7.0	13.0	13.0	16.0	15.5	14.0	14.0
13	4.5	4.5	4.5	4.5	8.5	7.0	13.5	13.0	16.0	15.5	14.0	14.0
14	4.5	4.5	4.5	4.5	8.5	8.0	13.5	13.5	16.0	15.5	14.0	14.0
15	4.5	4.5	4.5	4.5	8.0	6.5	13.5	13.5	16.0	16.0	14.0	14.0
16	4.5	4.5	4.5	4.5	9.0	8.0	14.0	13.5	16.0	16.0	14.0	14.0
17	4.5	4.5	4.5	4.5	9.0	8.5	15.0	14.0	16.0	16.0	14.0	14.0
18	4.5	4.5	4.5	4.5	9.5	8.0	15.0	15.0	16.0	16.0	14.0	13.5
19	4.5	4.5	4.5	4.5	9.5	8.5	15.0	15.0	16.0	16.0	13.5	13.0
20	4.5	4.5	4.5	4.5	9.5	9.0	15.0	15.0	16.0	16.0	13.0	13.0
21	4.5	4.5	4.5	4.5	9.5	9.0	15.0	15.0	16.5	16.0	13.0	13.0
22	4.5	4.5	5.0	4.5	9.5	9.0	15.0	15.0	16.5	16.0	13.0	12.0
23	4.5	4.5	5.0	5.0	10.0	9.5	15.0	15.0	16.5	16.0	12.0	12.0
24	4.5	4.5	5.0	5.0	10.0	10.0	15.0	15.0	16.5	16.0	12.0	12.0
25	4.5	4.5	5.0	5.0	10.5	10.0	15.0	15.0	16.0	15.5	12.0	11.5
26	4.5	4.5	5.0	5.0	10.5	10.5	15.0	15.0	15.5	14.5	11.5	11.5
27	4.5	4.5	5.0	5.0	13.0	10.5	15.0	15.0	14.5	14.5	11.5	11.5
28	4.5	4.5	5.0	5.0	11.5	9.5	15.0	14.5	14.5	14.0	11.5	11.5
29	4.5	4.5	5.0	5.0	11.0	10.0	15.0	15.0	14.0	14.0	11.5	11.0
30	4.5	4.5	5.0	5.0	11.5	10.0	15.0	15.0	14.0	14.0	11.0	11.0
31	---	---	5.5	5.0	---	---	15.0	15.0	14.0	13.5	---	---
MONTH	4.5	4.5	5.5	4.5	13.0	5.5	15.0	11.5	16.5	13.5	14.0	11.0

11493500 WILLAMSON RIVER NEAR KLAMATH AGENCY, OR

LOCATION.--Lat 42°44'25", long 121°50'00", in NW¼SW¼ sec.1, T.33 S., R.7 E., Klamath County, Hydrologic Unit 18010201, on right bank 250 ft (76 m) downstream from highway bridge, 0.6 mi (1.0 km) southwest of railroad station at Kirk, 10 mi (16 km) upstream from Spring Creek, and 10 mi (16 km) northeast of Klamath Agency.

DRAINAGE AREA.--1,290 mi^2 (3,340 km^2), approximately.

PERIOD OF RECORD.--March 1908 to January 1909, April 1909 to June 1910, October 1954 to current year. Monthly discharge only June 1910, published in WSP 1315-B.

REVISED RECORDS.--WSP 1565: 1908-9.

GAGE.--Water-stage recorder. Datum of gage is 4,483.16 ft (1,366.467 m) above mean sea level. Mar. 25, 1908, to June 30, 1910, nonrecording gage or water-stage recorder at two sites about 0.5 mi (0.8 km) upstream at different datums. Oct. 1, 1954, to Sept. 30, 1955, water-stage recorder at present site at datum 2.05 ft (0.625 m) higher.

REMARKS.--Records good above 50 ft^3/s (1.42 m^3/s) and fair below. Flow affected by natural storage in Klamath Marsh. Small diversions above station for irrigation in vicinity of marsh.

AVERAGE DISCHARGE.--23 years (water years 1955-77), 214 ft^3/s (6.060 m^3/s), 155,000 acre-ft/yr (191 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,590 ft^3/s (45.0 m^3/s) Mar. 13, 1910, gage height, 3.7 ft (1.13 m), site and datum then in use, from rating curve extended above 800 ft^3/s (22.7 m^3/s); maximum gage height, 5.75 ft (1.753 m) Mar. 3, 1958; no flow at times during 1960-74, and 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 365 ft^3/s (10.3 m^3/s) Mar. 30, gage height, 4.55 ft (1.387 m); no flow July 28 to Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	109	178	94	41	255	319	186	142	44	.00	.00
2	56	115	170	92	40	270	315	181	147	42	.00	.00
3	59	117	170	91	40	285	311	173	137	38	.00	.00
4	62	119	170	87	40	290	307	170	135	35	.00	.00
5	63	121	167	87	40	291	303	173	135	32	.00	.00
6	65	124	165	84	40	284	299	178	132	31	.00	.00
7	66	126	162	82	38	258	284	175	128	28	.00	.00
8	68	130	157	80	38	265	265	175	130	25	.00	.00
9	68	132	159	78	36	284	276	175	126	22	.00	.00
10	69	135	159	76	35	311	276	170	121	20	.00	.00
11	70	139	157	74	35	319	276	175	119	18	.00	.00
12	72	142	154	68	36	303	269	175	117	15	.00	.00
13	73	142	152	62	36	323	258	173	115	15	.00	.00
14	73	144	149	61	36	327	255	167	113	14	.00	.00
15	76	147	147	58	36	327	244	165	109	12	.00	.00
16	76	152	147	57	36	331	241	167	105	9.7	.00	.00
17	79	154	142	54	36	336	241	165	100	8.2	.00	.00
18	79	157	139	53	37	315	228	162	98	6.7	.00	.00
19	81	162	135	51	76	303	231	162	92	6.4	.00	.00
20	82	167	132	50	142	315	221	157	87	5.6	.00	.00
21	84	167	130	48	165	315	212	152	86	5.1	.00	.00
22	84	173	125	45	175	315	206	154	81	4.5	.00	.00
23	86	173	120	45	183	307	206	152	76	4.0	.00	.00
24	86	170	120	47	189	315	203	157	73	3.2	.00	.00
25	89	173	115	42	197	327	192	152	69	2.3	.00	.00
26	94	181	115	43	209	323	194	149	63	1.3	.00	.00
27	98	175	110	43	228	291	192	149	61	.04	.00	.00
28	100	165	110	43	244	311	189	152	59	.00	.00	.00
29	101	170	110	43	---	323	186	152	54	.00	.00	.00
30	105	173	105	44	---	340	186	149	51	.00	.00	.00
31	107	---	98	43	---	319	---	147	---	.00	.00	---
TOTAL	2428	4454	4369	1925	2484	9478	7385	5089	3061	448.04	.00	.00
MEAN	78.3	148	141	62.1	88.7	306	246	164	102	14.5	.000	.000
MAX	107	181	178	94	244	340	319	186	147	44	.00	.00
MIN	56	109	98	42	35	255	186	147	51	.00	.00	.00
AC-FT	4820	8830	8670	3820	4930	18800	14650	10090	6070	889	.00	.00

CAL YR 1976 TOTAL 71847.00 MEAN 196 MAX 551 MIN 11 AC-FT 142500
WTR YR 1977 TOTAL 41121.04 MEAN 113 MAX 340 MIN .00 AC-FT 81560

11497500 SPRAGUE RIVER NEAR BEATTY, OR

LOCATION.--Lat 42°26'50", long 121°14'15", in NW¼SE¼ sec.13, T.36 S., R.12 E., Klamath County, Hydrologic Unit 18010202, on right bank 1.6 mi (2.6 km) east of Beatty, and 4.6 mi (7.4 km) upstream from Sycan River.

DRAINAGE AREA.--513 mi² (1,329 km²).

PERIOD OF RECORD.--April to September 1912 and November 1912 to September 1913 (fragmentary), October 1913 to September 1915, February to November 1916, March 1917 to June 1918, May 1919 to October 1920, February 1921 to September 1926 (irrigation seasons only), October 1953 to current year. Monthly discharge only October 1913, published in WSP 1315-B. Prior to October 1917, published as "near Yainax."

REVISED RECORDS.--WSP 1315-B: 1917(M).

GAGE.--Water-stage recorder. Datum of gage is 4,305.35 ft (1,312.271 m) above mean sea level. Apr. 19, 1912, to Feb. 19, 1914, nonrecording gage, Feb. 20, 1914, to Sept. 11, 1917, water-stage recorder, and Sept. 12, 1917, to Sept. 30, 1926, nonrecording gage, at site 2 mi (3 km) upstream at different datum.

REMARKS.--Records good. No regulation. Diversions for irrigation above station in the vicinity of Bly.

AVERAGE DISCHARGE.--27 years (water years 1914-15, 1920, 1954-77), 309 ft³/s (8.751 m³/s), 223,900 acre-ft/yr (276 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,980 ft³/s (198 m³/s) Dec. 23, 1964, gage height, 12.19 ft (3.716 m); minimum, 56 ft³/s (1.59 m³/s) Aug. 11, 17, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 339 ft³/s (9.60 m³/s) June 8, 9, gage height, 4.04 ft (1.231 m); minimum, 56 ft³/s (1.59 m³/s) Aug. 11, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145	143	137	123	144	150	145	115	114	90	72	86
2	154	141	133	146	137	145	141	121	107	103	74	88
3	148	138	132	143	135	148	141	127	105	96	73	88
4	150	139	141	139	137	139	146	128	102	95	72	86
5	151	139	135	140	140	145	155	127	104	99	68	85
6	143	139	132	111	141	150	167	134	107	98	66	81
7	139	138	137	100	143	149	185	143	157	98	64	78
8	134	139	141	105	147	149	209	140	317	96	63	73
9	131	141	140	110	151	159	192	143	290	96	64	68
10	139	139	126	115	152	151	163	201	255	92	63	72
11	133	140	126	120	156	147	145	253	215	95	57	73
12	133	142	133	125	155	148	159	242	202	95	61	73
13	137	141	141	123	155	143	161	210	190	89	63	74
14	138	155	134	120	155	138	147	206	230	92	66	73
15	136	163	135	120	156	144	131	189	250	91	66	79
16	153	168	136	120	157	145	132	178	230	86	66	85
17	133	167	135	120	160	142	120	173	215	84	58	109
18	133	165	126	120	159	142	105	170	200	88	60	123
19	134	160	119	125	157	143	105	152	185	88	61	121
20	135	158	125	135	160	143	99	135	170	88	66	139
21	133	148	125	145	166	142	106	116	155	85	64	141
22	134	149	132	152	165	145	103	115	140	84	61	128
23	135	146	139	148	157	153	108	146	130	81	64	124
24	134	146	131	136	153	159	100	195	120	84	66	154
25	143	147	133	130	149	151	89	207	110	82	89	158
26	147	142	141	125	147	148	94	191	100	85	100	137
27	139	113	141	125	147	152	99	192	89	83	105	126
28	138	124	126	125	152	148	98	169	93	81	106	125
29	137	131	133	130	---	144	94	153	102	74	101	228
30	141	141	140	138	---	143	104	144	89	78	91	210
31	141	---	131	143	---	143	---	131	---	79	88	---
TOTAL	4321	4342	4136	3957	4233	4548	3943	5046	4873	2755	2238	3285
MEAN	139	145	133	128	151	147	131	163	162	88.9	72.2	110
MAX	154	168	141	152	166	159	209	253	317	103	106	228
MIN	131	113	119	100	135	138	89	115	89	74	57	68
AC-FT	8570	8610	8200	7850	8400	9020	7820	10010	9670	5460	4440	6520

CAL YR 1976 TOTAL 83198 MEAN 227 MAX 782 MIN 82 AC-FT 165000
WTR YR 1977 TOTAL 47677 MEAN 131 MAX 317 MIN 57 AC-FT 94570

11501000 SPRAGUE RIVER NEAR CHILOQUIN, OR

LOCATION.--Lat 42°35'05", long 121°50'55", in NE¼NW¼ sec.35, T.34 S., R.7 E., Klamath County, Hydrologic Unit 18010202, on right bank 1.0 mi (1.6 km) northeast of Chiloquin, 4.6 mi (7.4 km) upstream from Modoc Point Canal intake, and at mile 5.4 (8.7 km).

DRAINAGE AREA.--1,580 mi^2 (4,090 km^2), approximately.

PERIOD OF RECORD.--July to October 1920, March 1921 to current year. Monthly discharge only July 1920, published in WSP 1315-B. Prior to October 1931, published as "at McCready Ranch, near Chiloquin."

REVISED RECORDS.--WSP 591: 1922(M). WSP 1011: 1943(M). WSP 1565: 1921-22.

GAGE.--Water-stage recorder. Datum of gage is 4,202.43 ft (1,280.901 m) above mean sea level. Prior to Oct. 1, 1931, nonrecording gage at site 12 mi (19 km) upstream at different datum.

REMARKS.--Records good. Regulation by ponding at irrigation dams. Diversions above station for irrigation.

AVERAGE DISCHARGE.--56 years (water years 1922-77), 572 ft^3/s (16.20 m^3/s), 414,400 acre-ft/yr (511 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,900 ft^3/s (422 m^3/s) Dec. 26, 1964, gage height, 10.37 ft (3.161 m); minimum daily, 50 ft^3/s (1.42 m^3/s) May 26, 27, 1926.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 388 ft^3/s (11.0 m^3/s) May 13; maximum gage height, 2.16 ft (0.658 m) Jan. 1, backwater from ice; minimum discharge, 117 ft^3/s (3.31 m^3/s) July 22, 23, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	277	310	320	280	301	325	310	199	259	152	131	197
2	272	310	325	301	305	330	305	207	250	167	141	197
3	282	310	330	315	310	325	310	215	241	167	152	197
4	287	310	330	295	301	320	301	228	219	178	156	189
5	296	305	305	290	296	320	287	241	215	201	145	193
6	301	305	320	270	301	315	310	241	207	197	141	197
7	301	305	315	270	310	325	296	250	203	178	148	186
8	291	305	310	280	315	325	296	250	223	174	152	182
9	296	305	315	280	320	335	325	254	228	163	152	174
10	291	305	320	290	325	335	355	268	301	159	148	170
11	291	305	310	300	335	340	350	287	368	145	152	159
12	287	305	290	310	330	335	315	335	358	145	141	152
13	287	310	305	310	330	330	291	382	344	145	141	163
14	291	315	305	310	330	330	291	377	320	145	145	178
15	287	315	330	300	335	325	296	340	306	145	138	178
16	287	315	320	290	335	315	272	335	292	152	145	186
17	287	325	300	285	330	320	241	320	274	152	156	193
18	291	330	295	280	335	320	232	310	269	148	163	209
19	301	330	290	285	335	315	237	301	265	141	159	238
20	296	330	290	285	335	315	232	291	243	134	156	256
21	296	320	295	285	340	315	228	268	230	141	152	265
22	296	320	310	285	350	305	215	254	226	131	141	265
23	296	315	320	285	355	320	215	263	222	131	148	269
24	291	315	326	290	345	330	207	268	205	134	163	274
25	296	310	310	290	330	340	215	296	189	141	170	289
26	296	310	315	280	325	335	203	345	182	127	170	274
27	301	301	301	275	320	320	190	350	197	120	174	296
28	310	277	290	275	330	310	190	340	174	120	178	310
29	315	250	290	280	---	320	190	335	156	127	189	301
30	315	291	305	280	---	315	190	305	148	145	197	292
31	315	---	290	296	---	310	---	282	---	141	197	---
TOTAL	9126	9259	9571	8947	9109	10020	7895	8937	7314	4646	4841	6609
MEAN	294	309	309	289	325	323	263	288	244	150	156	220
MAX	315	330	330	315	355	340	355	382	368	201	197	310
MIN	272	250	290	270	296	305	190	199	148	120	131	152
AC-FT	18100	18370	18980	17750	18070	19870	15660	17730	14510	9220	9600	13110

CAL YR 1976 TOTAL 163256 MEAN 446 MAX 1120 MIN 203 AC-FT 323800
WTR YR 1977 TOTAL 96274 MEAN 264 MAX 382 MIN 120 AC-FT 191000

11502500 WILLIAMSON RIVER BELOW SPRAGUE RIVER, NEAR CHILOQUIN, OR

LOCATION.--Lat 42°34'15", long 121°52'35", in NE¼NE¼ sec.4, T.35 S., R.7 E., Klamath County, Hydrologic Unit 18010202, on right bank 0.2 mi (0.3 km) downstream from Sprague River and 0.8 mi (1.3 km) southwest of Chiloquin.

DRAINAGE AREA.--3,000 mi^2 (7,770 km^2), approximately.

PERIOD OF RECORD.--June 1917 to current year.

REVISED RECORDS.--WSP 981: 1938(M). WSP 1565: 1920(M), 1927(M), 1938.

GAGE.--Water-stage recorder. Datum of gage is 4,155.55 ft (1,266.612 m) above mean sea level. Prior to Sept. 1, 1923, at different datum.

REMARKS.--Records fair. Some regulation by diversion dams and logpond operations on Sprague River. Diversions for irrigation above station.

AVERAGE DISCHARGE.--60 years, 1,039 ft^3/s (29.42 m^3/s), 752,800 acre-ft/yr (928 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,100 ft^3/s (456 m^3/s) Dec. 26, 1964, gage height, 10.56 ft (3.219 m); minimum, 320 ft^3/s (9.06 m^3/s) Oct. 14, 1920.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,020 ft^3/s (28.9 m^3/s) Mar. 25, gage height, 2.91 ft (0.887 m); minimum, 469 ft^3/s (13.3 m^3/s) July 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	676	803	839	700	617	946	984	676	768	548	487	542
2	668	803	847	733	610	956	975	684	742	554	499	542
3	676	812	847	742	604	965	975	700	733	554	511	542
4	692	812	847	742	597	956	965	700	700	560	524	542
5	700	812	830	725	597	975	946	720	692	578	505	536
6	708	812	839	597	597	965	946	730	684	572	499	542
7	708	812	830	624	604	956	928	759	668	554	505	530
8	708	812	830	646	610	956	900	742	692	548	511	524
9	708	812	839	638	617	975	928	759	692	536	505	524
10	708	821	821	668	617	984	975	794	759	530	505	511
11	700	821	812	684	631	1010	975	803	830	517	505	505
12	700	830	776	692	646	1000	928	847	812	517	499	505
13	700	839	803	692	660	994	891	900	803	511	499	511
14	708	847	821	692	676	1010	882	909	794	511	505	524
15	708	839	821	692	700	1000	874	874	776	511	487	524
16	708	847	821	668	725	1000	847	865	759	517	493	536
17	708	865	812	653	750	1000	803	839	742	511	505	542
18	717	865	785	638	776	1000	785	830	733	505	511	560
19	725	874	750	653	812	984	750	821	725	499	511	590
20	725	874	733	646	830	984	742	812	692	487	505	604
21	725	874	742	653	856	984	733	776	676	493	505	610
22	725	874	759	646	882	984	717	768	668	487	493	610
23	725	874	794	653	919	994	717	776	653	487	493	617
24	733	865	768	660	919	994	708	776	631	487	517	626
25	742	865	776	638	919	1010	750	803	610	499	524	617
26	759	865	785	597	926	1010	708	847	590	487	524	626
27	768	856	759	590	926	975	684	856	597	475	524	653
28	785	812	750	604	946	965	676	839	578	475	530	692
29	794	768	759	610	---	984	668	839	554	475	536	676
30	794	812	750	610	---	1000	660	821	548	493	548	660
31	803	---	717	610	---	994	---	803	---	499	542	---
TOTAL	22406	25077	24662	20396	20573	30510	25020	24668	20901	15977	15807	17119
MEAN	723	836	796	658	735	984	834	796	697	515	510	571
MAX	803	874	847	742	946	1010	984	909	830	578	548	692
MIN	668	768	717	590	597	946	660	676	548	475	487	505
AC-FT	44440	49740	48920	40460	40810	60520	49630	48930	41460	31690	31350	33960

CAL YR 1976 TOTAL 354902 MEAN 970 MAX 1940 MIN 530 AC-FT 703900
WTR YR 1977 TOTAL 263114 MEAN 721 MAX 1010 MIN 475 AC-FT 521900

11503000 ANNIE SPRING NEAR CRATER LAKE, OR

LOCATION.--Lat 42°52'20", long 122°10'00", unsurveyed, Klamath County, Hydrologic Unit 18010203, in Crater Lake National Park, at highway bridge 0.1 mi (0.16 km) downstream from source.

PERIOD OF RECORD.--June to September 1977. Discharge measurement and fragmentary gage-height record August to October 1913. Discharge measurements only Oct. 11, 1967, June 26, Sept. 13, 1968.

GAGE.--Water-stage recorder. Altitude of gage is 6,050 ft (1,844 m), from topographic map.

REMARKS.--Records good. Slight regulation by pumps 0.1 mi (0.16 km) upstream. Diversion for domestic use by National Park Service 0.1 mi (0.16 km) upstream.

COOPERATION.--Records of diversion by pumping furnished by National Park Service.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period June to September, 2.5 ft³/s (0.07 m³/s) June 12, gage height, 0.88 ft (0.268 m); minimum, 0.36 ft³/s (0.010 m³/s) Sept. 11, 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									.88	1.3	.70	.56
2									.91	1.3	.74	.56
3									1.0	1.2	.77	.51
4									1.1	1.2	.67	.49
5									1.2	1.2	.70	.54
6									1.2	1.1	.70	.56
7									1.7	1.1	.70	.54
8									2.0	1.1	.70	.51
9									2.2	1.1	.70	.54
10									2.2	1.0	.70	.51
11									2.3	.99	.67	.54
12									2.4	.99	.67	.54
13									2.3	.95	.64	.54
14									2.3	.95	.67	.51
15									2.2	.95	.64	.51
16									2.2	.95	.67	.54
17									2.2	.91	.64	.54
18									2.1	.88	.64	.54
19									2.0	.88	.64	.56
20									1.9	.88	.62	.54
21									1.9	.88	.64	.54
22									1.9	.84	.59	.51
23									1.7	.80	.62	.56
24									1.7	.84	.62	.51
25									1.7	.77	.59	.51
26									1.6	.77	.62	.51
27									1.5	.77	.62	.51
28									1.4	.77	.56	.54
29									1.4	.70	.62	.51
30									1.3	.74	.59	.51
31									---	.70	.59	---
TOTAL									52.39	29.51	20.24	15.89
MEAN									1.75	.95	.65	.53
MAX									2.4	1.3	.77	.56
MIN									.88	.70	.56	.49
AC-FT									104	59	40	32

11506000 "A" CANAL AT KLAMATH FALLS, OR

LOCATION.--Lat 42°12'20", long 121°48'05", in NE¼ sec.30, T.38 S., R.9 E., Klamath County, Hydrologic Unit 18010204, on left bank 300 ft (91 m) downstream from headgates of canal and 1.0 mi (1.6 km) northwest of Klamath Falls.

PERIOD OF RECORD.--October 1910 to current year. Published as "Klamath Main Canal" 1911-12.

GAGE.--Water-stage recorder. Datum of gage is 4,126.22 ft (1,257.672 m) above mean sea level, Bureau of Reclamation datum (levels by Bureau of Reclamation). Prior to May 1, 1923, water-stage recorder at site 0.2 mi (0.3 km) downstream at head of tunnel and at different datum. May 1, 1923, to Apr. 20, 1924, water-stage recorder at site 1.0 mi (1.6 km) downstream, just below tunnel, at different datum. Apr. 21, 1924, to Apr. 14, 1925, nonrecording gage at present site and datum.

REMARKS.--Records excellent. Canal diverts water from Upper Klamath Lake in NE¼ sec.30, T.38 S., R.9 E., for irrigation of lands east of Klamath River on both sides of Lost River. Most of return water reaches Lost River.

COOPERATION.--Gage-height record, and records of daily discharge furnished by Klamath Irrigation District.

AVERAGE DISCHARGE.--67 years, 267 ft^3/s (7.56 m^3/s), 193,400 acre-ft/yr (238 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,180 ft^3/s (33.4 m^3/s) June 24, 1961; no flow for several months in each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	559	.00	.00	.00	.00	.00	.00	847	786	1000	947	705
2	576	.00	.00	.00	.00	.00	.00	813	879	972	943	738
3	543	.00	.00	.00	.00	.00	.00	765	931	935	924	772
4	508	.00	.00	.00	.00	.00	62	711	946	899	919	820
5	504	.00	.00	.00	.00	.00	218	691	969	892	911	838
6	496	.00	.00	.00	.00	.00	297	688	989	894	916	807
7	491	.00	.00	.00	.00	.00	354	651	962	923	915	813
8	489	.00	.00	.00	.00	.00	382	630	851	918	867	820
9	523	.00	.00	.00	.00	.00	421	611	974	921	831	801
10	528	.00	.00	.00	.00	.00	499	583	898	957	820	778
11	544	.00	.00	.00	.00	.00	470	494	769	982	842	756
12	558	.00	.00	.00	.00	.00	560	488	681	1000	892	772
13	569	.00	.00	.00	.00	.00	703	504	616	1000	873	760
14	579	.00	.00	.00	.00	.00	755	500	632	1010	841	750
15	193	.00	.00	.00	.00	.00	797	491	646	1010	853	783
16	.00	.00	.00	.00	.00	.00	860	518	707	1000	853	738
17	.00	.00	.00	.00	.00	.00	884	463	775	1000	853	641
18	.00	.00	.00	.00	.00	.00	838	185	836	1010	846	557
19	.00	.00	.00	.00	.00	.00	823	.00	831	1000	840	479
20	.00	.00	.00	.00	.00	.00	798	38	830	1010	861	390
21	.00	.00	.00	.00	.00	.00	774	396	899	1000	853	349
22	.00	.00	.00	.00	.00	.00	785	422	924	990	846	323
23	.00	.00	.00	.00	.00	.00	816	471	899	983	869	282
24	.00	.00	.00	.00	.00	.00	821	455	913	963	889	284
25	.00	.00	.00	.00	.00	.00	862	458	934	952	825	283
26	.00	.00	.00	.00	.00	.00	909	483	981	963	720	270
27	.00	.00	.00	.00	.00	.00	929	467	970	958	685	257
28	.00	.00	.00	.00	.00	.00	923	464	980	954	673	247
29	.00	.00	.00	.00	---	.00	886	496	1000	954	660	215
30	.00	.00	.00	.00	---	.00	869	549	1020	938	647	202
31	.00	---	.00	.00	---	.00	---	661	---	929	671	---
TOTAL	7660.00	.00	.00	.00	.00	.00	18295.00	15993.00	26028	29917	25885	17230
MEAN	247	.000	.00	.000	.000	.000	610	516	868	965	835	574
MAX	579	.00	.00	.00	.00	.00	929	847	1020	1010	947	838
MIN	.00	.00	.00	.00	.00	.00	.00	.00	616	892	647	202
AC-FT	15190	.00	.00	.00	.00	.00	36290	31720	51630	59340	51340	34180

CAL YR 1976 TOTAL 138797.00 MEAN 379 MAX 1070 MIN .00 AC-FT 275300
WTR YR 1977 TOTAL 141008.00 MEAN 386 MAX 1020 MIN .00 AC-FT 279700

11507001 UPPER KLAMATH LAKE NEAR KLAMATH FALLS, OR

LOCATION.--Lat 42°15'00", long 121°48'55", in NW¼SW¼ sec.19, T.38 S., R.9 E., Klamath County, Hydrologic Unit 18010203, at southeast end of lake, 1.4 mi (2.3 km) upstream from outlet and 2.5 mi (4.0 km) northwest of Main Street Bridge at Klamath Falls.

DRAINAGE AREA.--3,810 mi^2 (9,870 km^2), approximately, including 26.2 mi^2 (67.9 km^2) in closed basin of Crater Lake.

PERIOD OF RECORD.--May 1904 to September 1923 (gage heights only), October 1923 to current year. Monthend contents only October 1923 to September 1927, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 4,098.22 ft (1,249.137 m) above mean sea level, or 4,100.00 ft (1,249.680 m) above mean sea level, datum of Bureau of Reclamation. Gage readings have been reduced to elevations above mean sea level, datum of Bureau of Reclamation. See WSP 1735 for history of changes prior to Nov. 10, 1923. Since Oct. 1, 1974, supplementary water-stage recorders at sites 7 mi (11 km) north and 21 mi (34 km) northwest at same datum (water-surface transfer by Pacific Power and Light Co.).

REMARKS.--Reservoir is formed by concrete dam at outlet of natural lake, completed in 1921, replacing a temporary dam built in 1919; controlled storage began Apr. 15, 1919. Capacity, 523,700 acre-ft (646 hm^3) between elevations 4,136.0 ft (1,260.65 m) and 4,143.3 ft (1,262.88 m). Dead storage below elevation 4,136.0 ft (1,260.65 m) is 211,300 acre-ft (261 hm^3). Stored water may be diverted through "A" Canal for irrigation on land under Klamath project of Bureau of Reclamation, or released to Link River through dam or powerplants at Klamath Falls. Contents given herein represent those above elevation 4,136.0 ft (1,260.65 m). Prior to Oct. 1, 1973, contents given represented those above elevation 4,135.0 ft (1,260.35 m). Prior to Sept. 30, 1974, contents at end of month obtained by averaging elevations for last 3 days of month and first 3 days of following month to compensate for wind effect. Since Oct. 1, 1974, daily elevations are weighted mean of elevations at base and supplementary gages; contents at end of month are obtained from weighted midnight elevations of base and supplementary gages.

COOPERATION.--Capacity table furnished by Bureau of Reclamation, Klamath Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 4,144.98 ft (1,263.390 m) about Apr. 20, 1904, from high-water marks; minimum recorded, 4,135.55 ft (1,260.516 m) Oct. 30, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 4,142.77 ft (1,262.716 m) Apr. 6; minimum daily, 4,139.26 ft (1,261.646 m) Sept. 23.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

4,136	0	4,139	193,700	4,142	414,400
4,137	61,300	4,140	262,600	4,143	498,300
4,138	127,000	4,141	335,400	4,143.3	523,700

ELEVATION, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4141.46	4141.35	4140.76	4140.80	4140.96	4141.57	4142.73	4142.50	4142.73	4142.15	4140.80	4139.78
2	4141.46	4141.35	4140.74	4140.86	4140.95	4141.60	4142.70	4142.48	4142.72	4142.12	4140.70	4139.75
3	4141.45	4141.33	4140.73	4140.88	4140.96	4141.66	4142.72	4142.49	4142.68	4142.07	4140.72	4139.73
4	4141.44	4141.31	4140.71	4140.90	4140.96	4141.67	4142.74	4142.50	4142.65	4142.04	4140.65	4139.71
5	4141.42	4141.30	4140.70	4140.90	4140.98	4141.72	4142.75	4142.50	4142.64	4141.99	4140.60	4139.68
6	4141.42	4141.27	4140.69	4140.89	4140.98	4141.76	4142.77	4142.51	4142.61	4141.95	4140.60	4139.66
7	4141.41	4141.25	4140.68	4140.90	4141.00	4141.79	4142.74	4142.47	4142.59	4141.93	4140.56	4139.61
8	4141.40	4141.24	4140.68	4140.89	4141.01	4141.85	4142.74	4142.50	4142.61	4141.88	4140.52	4139.59
9	4141.39	4141.22	4140.68	4140.86	4141.02	4141.93	4142.75	4142.52	4142.59	4141.84	4140.50	4139.55
10	4141.37	4141.20	4140.68	4140.83	4141.03	4141.97	4142.74	4142.52	4142.57	4141.80	4140.48	4139.50
11	4141.36	4141.18	4140.68	4140.80	4141.06	4142.02	4142.74	4142.55	4142.61	4141.76	4140.38	4139.45
12	4141.34	4141.17	4140.68	4140.80	4141.06	4142.06	4142.75	4142.59	4142.62	4141.72	4140.36	4139.42
13	4141.33	4141.12	4140.68	4140.81	4141.08	4142.10	4142.76	4142.60	4142.62	4141.68	4140.32	4139.39
14	4141.32	4141.11	4140.68	4140.82	4141.10	4142.13	4142.72	4142.61	4142.63	4141.64	4140.29	4139.37
15	4141.32	4141.10	4140.67	4140.82	4141.12	4142.18	4142.69	4142.62	4142.63	4141.60	4140.29	4139.32
16	4141.33	4141.09	4140.68	4140.84	4141.14	4142.24	4142.69	4142.63	4142.63	4141.56	4140.23	4139.31
17	4141.33	4141.08	4140.69	4140.84	4141.16	4142.27	4142.67	4142.62	4142.61	4141.49	4140.13	4139.30
18	4141.34	4141.04	4140.69	4140.84	4141.18	4142.28	4142.64	4142.62	4142.59	4141.45	4140.04	4139.27
19	4141.33	4141.02	4140.70	4140.84	4141.20	4142.33	4142.63	4142.65	4142.58	4141.41	4140.06	4139.28
20	4141.33	4141.00	4140.70	4140.84	4141.22	4142.36	4142.62	4142.67	4142.56	4141.35	4140.04	4139.30
21	4141.34	4140.98	4140.69	4140.86	4141.25	4142.41	4142.58	4142.68	4142.55	4141.31	4139.98	4139.30
22	4141.35	4140.96	4140.70	4140.88	4141.30	4142.45	4142.56	4142.69	4142.53	4141.24	4139.95	4139.29
23	4141.34	4140.94	4140.71	4140.87	4141.33	4142.46	4142.57	4142.69	4142.50	4141.23	4139.93	4139.26
24	4141.33	4140.93	4140.72	4140.88	4141.36	4142.50	4142.57	4142.72	4142.49	4141.16	4139.88	4139.28
25	4141.35	4140.90	4140.72	4140.90	4141.40	4142.54	4142.51	4142.70	4142.44	4141.11	4139.88	4139.27
26	4141.37	4140.90	4140.73	4140.92	4141.44	4142.55	4142.53	4142.73	4142.41	4141.06	4139.87	4139.30
27	4141.37	4140.88	4140.74	4140.92	4141.48	4142.58	4142.52	4142.74	4142.38	4141.01	4139.84	4139.28
28	4141.38	4140.84	4140.75	4140.92	4141.52	4142.61	4142.50	4142.74	4142.32	4140.96	4139.83	4139.36
29	4141.37	4140.81	4140.77	4140.93	---	4142.62	4142.49	4142.74	4142.26	4140.90	4139.82	4139.43
30	4141.36	4140.78	4140.78	4140.94	---	4142.65	4142.50	4142.74	4142.21	4140.88	4139.82	4139.45
31	4141.36	---	4140.79	4140.94	---	4142.67	---	4142.73	---	4140.84	4139.80	---
MEAN	4141.37	4141.09	4140.71	4140.87	4141.15	4142.18	4142.65	4142.61	4142.55	4141.52	4140.22	4139.44
MAX	4141.46	4141.35	4140.79	4140.94	4141.52	4142.67	4142.77	4142.74	4142.73	4142.15	4140.80	4139.78
MIN	4141.32	4140.78	4140.67	4140.80	4140.95	4141.57	4142.49	4142.47	4142.21	4140.84	4139.80	4139.26
(†)	364,100	319,700	319,700	331,700	375,700	472,800	456,000	476,200	433,600	319,900	250,700	225,700
(‡)	-11,800	-44,400	0	+12,000	+44,000	+97,100	-16,800	+20,200	-42,600	-113,700	-69,200	-25,000

CAL YR 1976 MEAN 4141.61 MAX 4142.83 MIN 4140.67 AC-FT -7,300
WTR YR 1977 MEAN 4141.36 MAX 4142.77 MIN 4139.26 AC-FT -150,200

† Contents in acre-feet at end of month.
‡ Change in contents, in acre-feet.

11507501 LINK RIVER AT KLAMATH FALLS, OR

LOCATION.--Lat 42°13'25", long 121°47'35", in SW¼NW¼ sec.32, T.38 S., R.9 E., Klamath County, Hydrologic Unit 18010204, on right bank 600 ft (183 m) upstream from outlet of Keno Canal and 0.4 mi (0.6 km) upstream from Main Street Bridge at Klamath Falls.

DRAINAGE AREA.--3,810 mi² (9,870 km²), approximately, including 26.2 mi² (67.9 km²) in closed basin of Crater Lake.

PERIOD OF RECORD.--May 1904 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,083.71 ft (1,244.715 m) above mean sea level, or 4,085.50 ft (1,245.260 m) above mean sea level, datum of Bureau of Reclamation. Prior to Sept. 14, 1912, water-stage recorder or nonrecording gages at several sites within 0.5 mi (0.8 km) of present site at various datums. Sept. 14, 1912, to Nov. 23, 1923, at site 600 ft (183 m) downstream at datum 5.42 ft (1.652 m) lower. Nov. 24, 1923, to Nov. 15, 1961, at site on left bank at present datum.

REMARKS.--Records good. Flow regulated since 1919 by Upper Klamath Lake (see station 11507000). Large diurnal fluctuation caused by powerplant above station. Water diverted above station by main or "A" Canal of Klamath project (see station 11506000). Many other diversions above lake. All records presented herein include flow in Keno Canal which, since September 1908, has diverted from Upper Klamath Lake at Link River Dam for power generation, and returns flow to Link River below station.

AVERAGE DISCHARGE.--73 years, 1,599 ft³/s (45.28 m³/s), 1,158,000 acre-ft/yr (1.43 km³/yr), not adjusted for "A" Canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,400 ft³/s (266 m³/s) May 12, 1904, gage height at Main Street Bridge, 7.30 ft (2.225 m), datum then in use, from floodmarks; minimum daily, 17 ft³/s (0.48 m³/s) Dec. 13, 1937.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,240 ft³/s (91.8 m³/s) Nov. 17; minimum daily, 98 ft³/s (2.78 m³/s) Mar. 5, 6, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	925	1910	2280	1190	1270	101	589	487	436	1140	898	728
2	934	2110	2290	1090	1170	105	657	546	597	1040	972	657
3	925	2360	2180	1240	1240	152	719	572	640	721	1070	719
4	934	2360	2120	1270	1120	122	782	572	692	679	945	818
5	1080	2390	2050	1430	1160	98	865	665	855	672	999	827
6	1180	2370	1810	1380	1160	98	945	737	1050	570	866	791
7	1050	2390	1480	1410	1040	101	1090	597	773	817	838	855
8	1010	2420	1590	1840	1020	112	1190	436	226	832	857	955
9	1230	2480	1650	2570	1010	98	1030	411	226	834	847	895
10	1280	2390	1600	2530	901	119	1070	359	221	1010	772	895
11	1260	2320	1560	2210	835	112	847	285	226	504	821	845
12	1210	2400	1640	1420	843	108	881	266	226	555	868	719
13	1180	2470	1500	1140	816	105	953	272	226	773	753	719
14	955	2600	1310	1220	807	205	980	261	232	755	829	631
15	952	2570	1380	1150	734	112	953	305	266	728	619	791
16	973	2580	1310	1150	719	115	917	374	352	1050	529	657
17	1080	2840	1140	1140	589	105	917	331	478	1080	648	614
18	1130	2820	1280	1090	657	105	903	324	764	1060	640	521
19	1140	2670	1270	1230	737	105	782	337	597	1350	512	719
20	1050	2500	1430	1170	728	105	706	404	800	1220	572	1040
21	1070	2480	1390	976	728	108	757	445	623	1270	495	1090
22	1050	2500	1510	1060	631	156	689	436	521	1280	367	1130
23	1140	2420	1340	1100	572	200	542	580	487	1250	495	1040
24	1220	2400	1330	1160	529	200	650	538	935	1180	572	766
25	1080	2390	1320	1120	419	290	711	512	1090	1190	701	972
26	1090	2450	1190	1180	272	301	520	536	836	1170	436	1060
27	1080	2450	1300	1220	255	470	478	337	986	1130	396	1220
28	1460	2470	1310	1180	165	359	529	255	1100	1120	470	975
29	1810	2470	1250	1200	---	324	529	344	1240	1090	453	244
30	1960	2450	1170	1210	---	344	538	272	1220	1020	495	689
31	1930	---	1200	1150	---	420	---	318	---	872	720	---
TOTAL	36366	73630	47180	41426	22127	5551	23719	13116	18919	29962	21471	23922
MEAN	1173	2454	1522	1336	790	179	791	423	631	967	693	797
MAX	1960	2840	2290	2570	1270	470	1190	737	1240	1350	1070	1220
MIN	925	1910	1140	976	165	98	478	255	221	504	367	244
AC-FT	72130	146000	93580	82170	43890	11010	47050	26020	37530	59430	42590	47450

CAL YR 1976 TOTAL 484864 MEAN 1325 MAX 2840 MIN 266 AC-FT 961700
WTR YR 1977 TOTAL 357101 MEAN 978 MAX 2840 MIN 98 AC-FT 708300

11509500 KLAMATH RIVER AT KENO, OR

LOCATION.--Lat 42°08'00", long 121°57'40", in NW¼SE¼ sec.35, T.39 S., R.7 E., Klamath County, Hydrologic Unit 18010206, on left bank 1.7 mi (2.7 km) northwest of Keno and 4.5 mi (7.2 km) upstream from Spencer Creek.

DRAINAGE AREA.--3,920 mi^2 (10,200 km^2), approximately (not including Lost River or Lower Klamath Lake basins).

PERIOD OF RECORD.--June 1904 to December 1913, October 1929 to current year. Monthly discharge only October to December 1929, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 3,961 ft (1,207.3 m) above mean sea level (from river-profile survey). See WSP 1735 for history of changes prior to Nov. 6, 1954.

REMARKS.--Records good. Flow regulated since 1919 by Upper Klamath Lake (see station 11507001). Diversions for irrigation above station.

AVERAGE DISCHARGE.--57 years, 1,688 ft^3/s (47.80 m^3/s), 1,223,000 acre-ft/yr (1.51 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft^3/s (286 m^3/s) Mar. 5, 1972, gage height, 12.73 ft (3.880 m); minimum, 26 ft^3/s (0.74 m^3/s) Sept. 23, 1956; minimum daily, 60 ft^3/s (1.70 m^3/s) May 19, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 15.3 ft (4.66 m), from floodmark (original datum), about May 10, 1904, discharge, 9,250 ft^3/s (262 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,250 ft^3/s (120 m^3/s) Nov. 30, gage height, 9.03 ft (2.752 m); minimum, 244 ft^3/s (6.91 m^3/s) July 11; minimum daily, 254 ft^3/s (7.19 m^3/s) July 12-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SP
1	1360	2240	2590	1130	1090	473	348	512	416	399	440	48
2	1360	2450	2570	1140	1090	409	348	557	416	406	440	48
3	1360	2700	2350	1290	1100	354	348	595	392	406	440	48
4	1360	2650	2100	1220	1100	333	348	591	366	402	440	44
5	1470	2650	2100	1330	1100	363	392	631	366	423	440	44
6	1470	2650	1830	1440	1090	433	448	690	363	455	440	40
7	1470	2650	1530	1510	1050	433	444	690	363	455	440	40
8	1400	2650	1590	1890	976	430	448	685	366	462	448	40
9	1440	2640	1640	2610	917	430	448	690	370	462	448	40
10	1450	2640	1630	2610	881	392	448	690	399	462	451	40
11	1450	2640	1630	2510	881	389	448	690	617	259	448	40
12	1470	2640	1640	1790	875	389	444	685	805	254	448	44
13	1470	2640	1460	1250	875	342	448	690	781	254	448	44
14	1470	2640	1270	1230	875	302	455	690	561	254	448	44
15	1470	2640	1340	1230	850	324	444	690	399	254	382	37
16	1470	2640	1420	1220	825	345	444	690	370	423	302	57
17	1470	2640	1410	1220	825	348	444	690	370	345	302	90
18	1510	2640	1400	1220	825	373	440	690	370	423	302	90
19	1480	2640	1400	1220	825	395	444	685	370	489	302	20
20	1480	2640	1400	1160	825	395	466	631	366	470	302	140
21	1480	2640	1410	1100	825	370	504	595	366	529	302	140
22	1470	2640	1400	1090	825	348	520	595	366	529	302	140
23	1470	2640	1250	1090	800	351	520	617	366	529	299	12
24	1470	2640	1250	1090	718	351	516	680	366	528	360	28
25	1480	2640	1250	1090	635	348	520	680	402	520	437	28
26	1480	2650	1250	1090	586	348	520	747	406	485	433	91
27	1480	2650	1250	1090	582	348	520	662	402	440	433	120
28	1890	2640	1250	1090	557	351	512	635	402	440	437	48
29	2240	2630	1200	1090	---	351	512	635	409	440	437	97
30	2240	2630	1130	1090	---	348	512	489	409	440	440	61
31	2240	---	1130	1090	---	348	---	455	---	437	448	---
TOTAL	47820	78720	48070	42220	24403	11514	13653	19952	12720	13071	12439	103
MEAN	1543	2624	1551	1362	872	371	455	644	424	422	401	03
MAX	2240	2700	2590	2610	1100	473	520	747	805	529	451	60
MIN	1360	2240	1130	1090	557	302	348	455	363	254	299	97
AC-FT	94850	156100	95350	83740	48400	22840	27080	39570	25230	25930	24670	910

CAL YR 1976 TOTAL 500173 MEAN 1367 MAX 2730 MIN 252 AC-FT 992100
WTR YR 1977 TOTAL 342685 MEAN 939 MAX 2700 MIN 254 AC-FT 679700

11510700 KLAMATH RIVER BELOW JOHN C. BOYLE POWERPLANT, NEAR KENO, OR

LOCATION.--Lat 42°05'05", long 122°04'20", in SE¼SE¼ sec.14, T.40 S., R.6 E., Klamath County, Hydrologic Unit 18010206, on right bank 0.7 mi (1.1 km) downstream from John C. Boyle powerplant, 8 mi (13 km) downstream from Spencer Creek, and 8.5 mi (13.7 km) southwest of Keno.

DRAINAGE AREA.--4,080 mi² (10,570 km²), approximately (not including Lost River or Lower Klamath Lake basins).

PERIOD OF RECORD.--January 1959 to current year. Prior to Oct. 1, 1961, published as "below Big Bend powerplant."

GAGE.--Water-stage recorder. Datum of gage is 3,274.82 ft (998.165 m) above mean sea level (levels by Pacific Power & Light Co.).

REMARKS.--Records good. Flow regulated by Upper Klamath Lake (see station 11507000). Large diurnal fluctuation caused by John C. Boyle powerplant and 2 powerplants below Upper Klamath Lake. Diversions for irrigation above station.

AVERAGE DISCHARGE.--18 years, 1,876 ft³/s (53.13 m³/s), 1,359,000 acre-ft/yr (1.68 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft³/s (312 m³/s) Mar. 5, 1972, gage height, 9.33 ft (2.844 m); minimum, 283 ft³/s (8.01 m³/s) Feb. 17, 1968; minimum daily, 317 ft³/s (8.98 m³/s) July 25, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,840 ft³/s (80.4 m³/s) Nov. 3-5, 11, 12, gage height, 5.72 ft (1.743 m); minimum, 336 ft³/s (9.52 m³/s) many days during June through September; minimum daily, 340 ft³/s (9.63 m³/s) July 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1520	2540	2780	1500	1290	730	585	772	615	650	656	700
2	1510	2500	2660	1210	1290	683	625	766	600	610	661	694
3	1510	2800	2420	1650	1200	635	625	865	645	610	656	650
4	1510	2810	2340	1500	1210	545	630	859	600	615	656	656
5	1520	2820	2330	1490	1220	590	630	846	590	610	661	656
6	1520	2810	2020	1540	1200	590	678	934	590	748	661	656
7	1710	2810	1820	1500	1160	672	672	934	600	790	661	650
8	1480	2810	1780	2140	1250	678	672	934	605	790	661	694
9	1680	2810	1780	2590	1120	865	718	941	610	683	661	694
10	1480	2810	1760	2610	1160	683	718	941	610	742	661	650
11	1680	2810	1770	2430	1150	635	808	941	656	431	661	650
12	1480	2810	1770	1860	1100	635	808	948	1140	343	661	650
13	1680	2810	1770	1450	1100	635	796	852	990	343	656	650
14	1480	2810	1530	1430	1090	667	760	934	969	340	661	656
15	1710	2810	1530	1430	1090	540	718	941	610	610	661	661
16	1500	2810	1530	1410	1050	540	718	941	565	700	522	826
17	1680	2810	1540	1420	1050	545	766	934	565	605	522	913
18	1480	2810	1540	1410	1050	540	766	941	560	565	522	913
19	2050	2810	1550	1430	1050	635	730	941	560	694	522	1000
20	1500	2810	1540	1390	1050	730	730	839	560	700	522	1120
21	1480	2810	1540	1310	1050	630	724	927	560	742	527	1140
22	1470	2810	1540	1290	1040	630	718	927	605	742	522	1420
23	1780	2810	1540	1310	1060	635	760	700	605	689	513	1110
24	1470	2810	1530	1310	1010	630	760	872	605	694	610	927
25	1680	2810	1540	1330	962	625	760	872	645	694	656	969
26	1470	2800	1510	1400	859	635	754	872	645	736	650	1150
27	1740	2800	1490	1310	865	630	754	808	645	650	650	1220
28	2010	2810	1210	1330	820	630	766	872	640	650	650	802
29	2220	2810	1500	1300	---	630	766	872	689	700	650	364
30	2380	2810	1500	1290	---	580	772	694	645	661	645	808
31	2430	---	1250	1290	---	585	---	550	---	656	650	---
TOTAL	51810	83700	53910	47860	30546	19663	21687	27070	19524	19793	19228	24649
MEAN	1671	2790	1739	1544	1091	634	723	873	651	638	620	822
MAX	2430	2820	2780	2610	1290	865	808	948	1140	790	661	1420
MIN	1470	2500	1210	1210	820	540	585	550	560	340	513	364
AC-FT	102800	166000	106900	94930	60590	39000	43020	53690	38730	39260	38140	48890

CAL YR 1976 TOTAL 581379 MEAN 1588 MAX 2820 MIN 364 AC-FT 1153000
WTR YR 1977 TOTAL 419440 MEAN 1149 MAX 2820 MIN 340 AC-FT 832000

11516530 KLAMATH RIVER BELOW IRON GATE DAM, CA

LOCATION.--Lat 41°55'41", long 122°26'35", in SE¼NE¼ sec.17, T.47 N., R.5 W., Siskiyou County, Hydrologic Unit 18010206, on left bank 0.1 mi (0.2 km) downstream from Bogus Creek, 0.6 mi (1.0 km) downstream from Iron Gate Dam, and 5.9 mi (9.5 km) northeast of Hornbrook.

DRAINAGE AREA.--4,630 mi^2 (11,990 km^2), approximately (not including Lost River and Lower Klamath Lake basins).

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,162.44 ft (659.112 m) above mean sea level (levels by Pacific Power and Light Co.).

REMARKS.--Records excellent. Flow regulated by Upper Klamath Lake, capacity, 523,700 acre-ft (646 hm^3), other smaller reservoirs, and diversions above station. Iron Gate Dam 0.6 mi (1.0 km) upstream is a re-regulating reservoir (see sta 11516510). Records of chemical analyses and water temperatures for the current year are published in the California district report.

AVERAGE DISCHARGE.--17 years, 2,254 ft^3/s (63.83 m^3/s), 1,633,000 acre-ft/yr (2.01 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,400 ft^3/s (833 m^3/s) Dec. 22, 1964, gage height, 13.63 ft (4.154 m), from rating curve extended above 15,000 ft^3/s (425 m^3/s), on basis of slope-area measurement of maximum flow; minimum daily, 647 ft^3/s (18.3 m^3/s) Oct. 30, Nov. 6, 1960, Sept. 24, Oct. 1, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,120 ft^3/s (88.4 m^3/s) Nov. 14, 20, gage height, 5.33 ft (1.625 m); minimum daily, 706 ft^3/s (20.0 m^3/s) Sept. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1610	2470	2940	1490	1480	727	729	1020	789	720	716	709
2	1610	2810	2880	1490	1400	723	728	1020	753	722	715	708
3	1600	2950	2580	1450	1330	738	728	1010	740	720	725	708
4	1600	3050	2460	1410	1320	735	728	1000	728	724	726	708
5	1790	3030	2430	1480	1330	723	728	1000	730	719	726	708
6	1790	3020	2340	1550	1330	719	728	1010	732	712	725	708
7	1800	3020	2040	1550	1330	723	726	1010	734	714	728	712
8	1790	3010	1990	1640	1330	723	729	1000	728	717	722	706
9	1800	3020	1980	1760	1330	726	729	1010	729	718	719	707
10	1800	3040	1960	1800	1330	723	730	1010	729	717	716	708
11	1800	3040	1970	2850	1320	722	731	1010	721	717	716	708
12	1800	3040	2000	2600	1320	723	730	1010	716	725	717	711
13	1800	3040	1920	2210	1320	722	727	1010	778	724	719	714
14	1800	3080	1760	1830	1330	722	727	1010	886	717	720	711
15	1800	3070	1750	1740	1330	721	728	1020	886	720	718	723
16	1800	3050	1750	1690	1330	727	728	1020	796	720	719	967
17	1800	3050	1750	1640	1330	724	762	1020	719	718	718	1330
18	1800	3050	1740	1550	1320	724	873	1020	719	720	713	1330
19	1800	3050	1740	1510	1320	723	848	1020	719	722	712	1340
20	1800	3080	1730	1520	1330	723	834	1020	715	723	715	1340
21	1800	3010	1660	1520	1330	723	798	1010	716	722	715	1340
22	1800	2970	1570	1520	1330	723	792	1020	721	723	715	1340
23	1800	2960	1570	1520	1330	727	791	1030	720	723	713	1340
24	1800	2960	1560	1520	1320	723	790	1020	722	723	716	1350
25	1800	2960	1550	1520	1330	723	799	1020	722	723	720	1340
26	1800	2950	1550	1520	1340	723	803	1020	723	724	718	1330
27	1800	2940	1550	1520	1340	723	798	1020	722	721	718	1330
28	1800	2930	1520	1500	1340	720	784	1020	723	712	713	1360
29	2170	2960	1490	1480	---	719	731	1020	718	713	712	1380
30	2440	2960	1500	1480	---	726	779	1010	718	715	709	1350
31	2430	---	1490	1480	---	731	---	1010	---	714	710	---
TOTAL	56630	89570	58720	51340	37420	22452	22836	31450	22252	22302	22244	30416
MEAN	1827	2986	1894	1656	1336	724	761	1015	742	719	718	1014
MAX	2440	3080	2940	2850	1480	738	873	1030	886	725	728	1380
MIN	1600	2470	1490	1410	1320	719	726	1000	715	712	709	706
AC-FT	112300	177700	116500	101800	74220	44530	45300	62380	44140	44240	44120	60330

CAL YR 1976 TOTAL 671773 MEAN 1835 MAX 3440 MIN 709 AC-FT 1332000
WTR YR 1977 TOTAL 467632 MEAN 1281 MAX 3080 MIN 706 AC-FT 927500

12472800 COLUMBIA RIVER BELOW PRIEST RAPIDS DAM, WA

LOCATION.--Lat 46°37'44", long 119°51'49", in SE¼NW¼ sec.7, T.13 N., R.24 E., Grant County, Hydrologic Unit 17020016, on left bank 2.6 mi (4.2 km) downstream from Priest Rapids Dam, 14.7 mi (23.7 km) south of Beverly, and at mile 394.5 (634.8 km).

DRAINAGE AREA.--96,000 mi² (249,000 km²), approximately.

PERIOD OF RECORD.--January 1917 to current year. January 1917 to September 1930, at site 3.4 mi (5.5 km) downstream, published as "at Vernita." October 1930 to July 27, 1959, at site 46.5 mi (74.8 km) upstream, published as "at Trinidad."

REVISED RECORDS.--WSP 1933: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Oct. 1, 1930, nonrecording gages at site 3.4 mi (5.5 km) downstream at datum 388.7 ft (118.48 m) above mean sea level, unadjusted. Oct. 1, 1930, to July 27, 1959, water-stage recorder at site 46.5 mi (74.8 km) upstream at datum 499.3 ft (152.19 m) above mean sea level (river-profile survey).

REMARKS.--Records excellent. Diversions for irrigation of about 500,000 acres (2,020 km²) above station. Flow regulated by 10 major reservoirs and numerous smaller reservoirs and powerplants.

AVERAGE DISCHARGE.--60 years, 120,400 ft³/s (3,410 m³/s), 87,230,000 acre-ft/yr (108,000 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 692,600 ft³/s (19,600 m³/s) June 12, 1948, gage height, 59.35 ft (18.090 m), site and datum then in use; minimum, 4,120 ft³/s (117 m³/s) Feb. 10, 1932, gage height, 11.40 ft (3.475 m) site and datum then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 7, 1894, reached a discharge of about 740,000 ft³/s (21,000 m³/s), based on information obtained at other points.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 192,000 ft³/s (5,440 m³/s) May 9, elevation, 411.08 ft (125.297 m); minimum, 35,500 ft³/s (1,010 m³/s) July 2, elevation, 396.25 ft (120.777 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99800	100000	127000	109000	118000	126000	93200	53500	122000	74600	82200	84700
2	101000	104000	90300	102000	123000	109000	70100	117000	127000	42700	80800	97300
3	96100	100000	84600	108000	130000	111000	48800	108000	98600	45100	99800	62900
4	114000	107000	91700	131000	110000	116000	60300	90100	59300	38900	83500	55900
5	99700	99300	79800	118000	109000	74900	65400	106000	43100	60600	83200	47900
6	108000	87200	101000	112000	88900	77600	76100	104000	77600	82500	61400	85000
7	102000	62500	99900	108000	118000	117000	62200	69000	81400	90500	56000	89800
8	101000	84100	83000	97800	92900	115000	67700	42100	69300	71200	89900	90900
9	104000	98200	88400	93000	86000	115000	55500	107000	77100	43600	91500	91300
10	91600	108000	92700	111000	85600	114000	63300	126000	79800	38400	71400	61900
11	107000	111000	76600	126000	88300	104000	55800	125000	51800	68700	91900	59200
12	114000	109000	80400	114000	77200	55700	69600	105000	52000	64000	87200	98400
13	121000	103000	109000	86400	72600	51700	73100	86700	84100	79900	85100	92900
14	115000	81600	97000	108000	91500	113000	75200	92800	83200	91400	56500	89300
15	100000	102000	92900	97700	103000	109000	67700	52700	81600	83600	94100	86900
16	108000	111000	100000	83600	86600	108000	73900	99400	99900	77000	91400	88400
17	101000	88000	111000	93600	104000	98100	48400	110000	109000	53100	85200	84700
18	109000	111000	104000	97500	97500	99700	76000	119000	66100	90800	73400	46000
19	116000	93900	96200	105000	66800	80500	86700	116000	68300	83200	85900	79400
20	106000	86900	108000	108000	59300	69900	84400	95400	86200	90400	65500	87600
21	103000	76700	111000	114000	116000	80600	91700	67500	94300	89500	49700	88100
22	113000	103000	118000	114000	105000	96800	86200	61100	87100	93000	95600	82700
23	102000	104000	99800	127000	116000	102000	64900	121000	60200	72100	73600	92300
24	89700	105000	101000	130000	112000	113000	50600	139000	81000	43200	83200	92300
25	116000	73900	82000	132000	119000	123000	79100	110000	66800	81700	75600	63800
26	93100	80100	54900	135000	82600	82600	72500	120000	60000	81800	78500	87000
27	115000	96300	87900	111000	71100	76300	70300	129000	92400	88600	58300	81100
28	122000	93500	115000	127000	104000	106000	64900	43600	77300	94500	59800	81100
29	113000	112000	112000	146000	---	96700	68800	44500	69500	82000	87400	74200
30	118000	115000	107000	141000	---	95200	62100	71400	58300	81900	77500	76800
31	72000	---	116000	127000	---	97600	---	119000	---	56200	92500	---
TOTAL	3271000	2907200	3018100	3513600	2735900	3034900	2084500	2966800	2364300	2227500	2447600	2399800
MEAN	105500	96910	97360	113300	97710	97900	69480	95700	78810	71850	78950	79990
MAX	122000	115000	127000	146000	130000	126000	93200	139000	127000	94500	99800	98400
MIN	72000	62500	54900	83600	59300	51700	48400	42100	43100	38400	49700	46000
AC-FT	6488000	5766000	5986000	6969000	5427000	6020000	4135000	5885000	4690000	4418000	4855000	4760000

CAL YR 1976 TOTAL 51888000 MEAN 141800 MAX 263000 MIN 38300 AC-FT 102900000
WTR YR 1977 TOTAL 32971200 MEAN 90330 MAX 146000 MIN 38400 AC-FT 65400000

13181000 OWYHEE RIVER NEAR ROME, OR

LOCATION.--Lat 42°52'02", long 117°38'52", in SE¼NE¼ sec.14, T.31 S., R.41 E., Malheur County, Hydrologic Unit 17050107, on right bank 0.5 mi (0.8 km) downstream from Jordan Creek, 2.6 mi (4.2 km) north of Rome, and at mile 122.4 (196.9 km).

DRAINAGE AREA.--About 8,000 mi^2 (20,700 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,344.20 ft (1,019.312 m) above mean sea level. Prior to Feb. 10, 1960, at datum 0.24 ft (0.073 m) lower.

REMARKS.--Water-discharge records good. Flow regulated by Antelope Reservoir, capacity, 70,000 acre-ft (86.3 hm^3), increased in 1970, and Wild Horse Reservoir, capacity, 32,690 acre-ft (40.3 hm^3), and numerous small reservoirs. Diversions above station for irrigation.

AVERAGE DISCHARGE.--28 years, 907 ft^3/s (25.69 m^3/s), 657,100 acre-ft/yr (810 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,500 ft^3/s (949 m^3/s) Dec. 24, 1964, gage height, 16.7 ft (5.09 m), from floodmark; minimum, 42 ft^3/s (1.19 m^3/s) Aug. 12, 1954, July 28, Aug. 5, 1961, July 31, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 675 ft^3/s (19.1 m^3/s) Apr. 6, gage height, 1.95 ft (0.594 m), no peak above base of 5,400 ft^3/s (153 m^3/s); minimum, 57 ft^3/s (1.61 m^3/s) July 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	196	213	185	171	190	199	237	127	304	118	98	95
2	180	209	190	187	190	203	227	130	276	120	92	99
3	177	209	195	206	170	203	237	118	248	113	92	99
4	183	206	200	160	160	213	244	118	223	107	106	99
5	187	209	190	150	155	213	419	130	206	112	96	97
6	187	209	175	120	155	193	491	135	187	109	105	83
7	199	209	175	105	155	190	515	153	171	103	106	84
8	213	216	175	105	160	187	540	162	153	96	116	81
9	216	209	175	105	170	209	555	165	144	94	119	75
10	203	206	175	115	180	234	515	159	156	91	110	75
11	206	206	175	130	190	241	491	180	502	87	109	78
12	196	199	175	150	206	237	491	213	478	80	123	79
13	193	196	175	170	209	237	415	196	419	77	123	80
14	187	190	175	185	213	220	397	174	419	70	124	78
15	187	190	175	190	206	216	370	190	415	82	125	81
16	193	206	175	190	196	234	347	220	365	74	132	79
17	190	220	175	190	203	234	325	213	308	67	123	81
18	187	213	190	190	206	223	304	216	269	75	119	85
19	183	209	195	190	216	227	269	213	255	84	116	87
20	180	209	200	190	240	230	258	209	241	120	111	92
21	180	220	150	190	251	234	262	206	248	123	111	95
22	180	213	159	190	251	220	237	209	296	120	107	97
23	180	209	177	190	251	216	209	227	285	109	103	100
24	180	203	180	190	244	280	193	244	268	102	86	111
25	183	199	168	190	244	276	183	255	262	89	84	113
26	199	199	180	180	220	276	171	248	239	86	90	109
27	199	190	180	175	216	312	144	255	214	92	107	107
28	199	185	187	170	203	304	141	284	185	111	116	108
29	203	180	177	160	---	276	133	308	163	94	115	118
30	209	180	180	160	---	237	130	304	132	91	111	135
31	213	---	165	170	---	251	---	312	---	95	102	---
TOTAL	5968	6111	5548	5164	5650	7225	9450	6273	8031	2991	3377	2800
MEAN	193	204	179	167	202	233	315	202	268	96.5	109	93.3
MAX	216	220	200	206	251	312	555	312	502	123	132	135
MIN	177	180	150	105	155	187	130	118	132	67	84	75
AC-FT	11840	12120	11000	10240	11210	14330	18740	12440	15930	5930	6700	5550

CAL YR 1976 TOTAL 360262 MEAN 984 MAX 4220 MIN 127 AC-FT 714600
WTR YR 1977 TOTAL 68588 MEAN 188 MAX 555 MIN 67 AC-FT 136000

13181000 OWYHEE RIVER NEAR ROME, OR

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1972 to June 1977 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28.5°C July 26-28, 1975; minimum, 0.0°C on several days in 1973, 1974, 1975.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 24.5°C June 6-9; minimum recorded, 0.5°C Feb. 8, 9.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	15.5	7.0	6.5					---	---	4.0	4.0
2	15.5	14.0	8.0	7.0					---	---	4.5	4.0
3	14.0	12.0	8.0	7.0					---	---	5.0	4.5
4	14.0	12.0	8.0	7.0					---	---	5.0	4.5
5	14.0	12.0	8.0	6.5					---	---	5.5	4.5
6	13.5	11.5	8.0	7.0					---	---	5.5	5.0
7	13.5	11.0	8.0	7.0					---	---	5.5	5.5
8	13.0	10.5	7.0	6.5					0.5	0.5	6.5	5.0
9	13.0	11.0	6.5	6.0					1.0	0.5	6.5	6.0
10	13.5	11.5	6.0	6.0					1.0	1.0	6.5	5.5
11	13.0	11.5	6.0	5.5					1.5	1.0	6.0	5.5
12	12.0	10.5	6.0	5.5					1.5	1.5	6.5	6.0
13	11.5	10.0	5.5	4.5					1.5	1.5	6.5	6.0
14	11.0	10.0	4.5	4.5					3.0	1.5	6.5	6.0
15	11.0	9.5	4.5	4.5					3.5	3.0	6.5	6.0
16	10.5	9.0	6.0	4.5					4.0	3.5	7.0	6.5
17	10.0	9.0	6.0	5.5					4.5	4.0	7.0	6.5
18	9.5	8.0	6.0	5.5					4.5	4.5	7.0	6.5
19	8.0	6.5	6.0	5.5					4.5	4.0	8.5	6.5
20	8.5	6.5	5.5	5.5					4.0	4.0	8.5	6.5
21	8.5	7.0	5.5	5.0					4.0	4.0	8.5	8.0
22	8.5	7.0	5.0	5.0					4.0	4.0	9.0	8.0
23	8.5	7.0	5.0	4.5					4.0	4.0	9.0	8.5
24	8.5	7.0	4.5	4.5					4.0	3.5	9.0	8.0
25	7.0	7.0	4.5	4.5					3.5	3.5	9.0	8.0
26	8.5	7.0	4.5	4.5					3.5	3.5	9.0	8.0
27	8.5	7.0	4.5	---					4.5	3.5	9.0	6.0
28	8.0	6.5	---	---					4.5	4.0	6.0	6.0
29	7.0	6.5	---	---					---	---	6.0	6.0
30	8.0	6.5	---	---					---	---	6.0	6.0
31	8.0	7.0	---	---					---	---	6.0	6.0
MONTH	17.0	6.5	8.0	4.5					4.5	0.5	9.0	4.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.5	6.0	18.0	16.5	20.5	19.0						
2	6.5	6.0	17.0	16.0	20.5	18.5						
3	8.5	6.5	16.5	14.5	20.5	18.5						
4	10.0	8.0	14.5	13.5	22.0	20.0						
5	10.5	9.0	14.5	13.5	23.5	21.0						
6	11.0	10.0	14.0	13.0	24.5	22.0						
7	10.5	10.0	14.5	13.5	24.5	23.0						
8	10.5	10.0	14.5	13.5	24.5	23.0						
9	11.0	10.0	14.5	14.0	24.5	22.0						
10	11.0	10.0	14.5	13.5	22.0	20.5						
11	11.0	10.0	14.0	13.5	20.5	19.5						
12	11.0	10.0	15.0	14.0	20.5	19.5						
13	11.0	10.5	16.5	14.5	20.5	19.0						
14	10.5	10.0	16.5	15.5	19.5	18.5						
15	11.0	10.0	15.5	14.5	20.5	18.5						
16	10.5	10.0	14.5	14.0	21.0	19.0						
17	10.5	10.0	14.5	14.0	21.0	19.0						
18	11.0	10.0	15.5	14.5	21.0	19.0						
19	11.0	10.0	14.0	15.0	21.0	20.0						
20	11.0	10.0	17.0	15.5	20.5	20.0						
21	11.5	11.0	18.0	16.5	21.0	19.0						
22	12.0	11.0	18.5	17.0	---	---						
23	14.0	12.0	18.5	16.5	---	---						
24	15.0	13.5	16.5	16.0	---	---						
25	15.0	14.5	17.0	16.0	---	---						
26	15.0	13.5	17.0	16.0	---	---						
27	15.5	13.5	16.5	15.5	---	---						
28	16.0	14.0	18.0	15.5	---	---						
29	18.0	15.5	18.5	16.5	---	---						
30	18.0	16.0	19.0	17.0	---	---						
31	---	---	20.5	18.0	---	---						
MONTH	18.0	6.0	20.5	13.0	24.5	18.5						

13182500 LAKE OWYHEE NEAR NYSSA, OR

LOCATION.--Lat 43°38'30", long 117°14'30", in NW¼SE¼ sec.20, T.22 S., R.45 E., Malheur County, Hydrologic Unit 17050110, near left abutment on Owyhee Dam on Owyhee River, 21 mi (33.8 km) southwest of Nyssa, and at mile 28.5 (45.9 km).

DRAINAGE AREA.--11,160 mi^2 (28,900 km^2), approximately.

PERIOD OF RECORD.--October 1932 to current year. Prior to October 1958, published as Owyhee Reservoir at Owyhee Dam, near Nyssa.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to Oct. 1, 1965, non-recording gage at same site and datum.

REMARKS.--Reservoir is formed by concrete arch-gravity dam, completed in September 1932; storage began Oct. 16, 1932. Capacity, 1,122,000 acre-ft (1,380 hm^3) between elevations 2,367.50 ft (721.614 m) bottom of sluice gates and 2,670.00 ft (813.816 m) top of spillway gate, 715,000 acre-ft (882 hm^3) between elevations 2,590.20 ft (789.493 m) diversion tunnel and 2,670.00 ft (813.816 m). Dead storage below elevation 2,367.50 ft (721.614 m) negligible. Figures given herein are contents above elevation 2,367.50 ft (721.614 m). Reservoir generally will not be drawn below elevation 2,590.2 ft (789.493 m) contents, 406,800 acre-ft (502 hm^3), which project considers dead storage. Water is released through diversion tunnel to South Canal for irrigation of lands west of Snake River in vicinity of Homedale, Idaho, and to North Canal for irrigation of lands north and west of Owyhee River, and through sluice gates to river for Owyhee Canal, which diverts about 18 mi (29 km) downstream.

COOPERATION.--Capacity tables furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 1,140,000 acre-ft (1,410 hm^3) Apr. 15, 1952, elevation, 2,671.50 ft (814.273 m); minimum observed since full capacity was attained on May 7, 1936, 437,000 acre-ft (539 hm^3) Oct. 1, 1961, elevation, 2,595.35 ft (791.063 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 931,600 acre-ft (1,150 hm^3) Mar. 31, elevation, 2,653.99 ft (808.936 m); minimum, 583,900 acre-ft (720 hm^3) Sept. 30, elevation, 2,616.44 ft (797.491 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	2,645.72	843,900	-
Oct. 31	2,645.66	843,300	-600
Nov. 30	2,647.40	861,100	+17,800
Dec. 31	2,649.02	878,000	+16,900
CAL YR 1976	-	-	-124,000
Jan. 31	2,650.66	895,400	+17,400
Feb. 28	2,652.32	913,300	+17,900
Mar. 31	2,653.98	931,400	+18,100
Apr. 30	2,650.25	891,000	-40,400
May 31	2,645.49	841,500	-49,500
June 30	2,639.25	780,100	-61,400
July 31	2,629.94	695,300	-84,800
Aug. 31	2,620.82	618,600	-76,700
Sept.30	2,616.44	583,900	-34,700
WTR YR 1977	-	-	-260,000

13183000 OWYHEE RIVER BELOW OWYHEE DAM, OR

LOCATION.--Lat 43°39'17", long 117°15'16", in SE¼ sec.18, T.22 S., R.45 E., Malheur County, Hydrologic Unit 17050110, on left bank 0.8 mi (1.3 km) downstream from Owyhee Dam, 20 mi (32 km) southwest of Nyssa, and at mile 27.3 (43.9 km).

DRAINAGE AREA.--11,160 mi^2 (28,900 km^2), approximately.

PERIOD OF RECORD.--February 1929 to current year.

REVISED RECORDS.--WSP 983: 1941-42. WSP 1397: 1930, 1933, 1946.

GAGE.--Water-stage recorder. Datum of gage is 2,343.67 ft (714.351 m) above mean sea level (levels by Bureau of Reclamation).

REMARKS.--Records good. Flow regulated since October 1932 by Lake Owyhee (see station 13182500), and by many smaller reservoirs. Diversion of 425,800 acre-ft (525 hm^3) from Lake Owyhee during the year for irrigation of lands below station and outside the basin. Many smaller diversions above Lake Owyhee for irrigation above station.

COOPERATION.--Water-stage recorder inspected by irrigation district employees.

AVERAGE DISCHARGE.--45 years (water years 1933-77), 356 ft^3/s (10.08 m^3/s), 257,900 acre-ft/yr (318 hm^3/yr), not adjusted for storage or diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,900 ft^3/s (649 m^3/s) Apr. 15, 1952, gage height, 15.70 ft (4.785 m); no flow for part of Aug. 8, 9, 1932, when temporary diversion tunnel at Owyhee Dam was closed.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 152 ft^3/s (4.30 m^3/s) May 1, gage height, 1.94 ft (0.591 m); minimum, 1.9 ft^3/s (0.054 m^3/s) Feb. 1, gage height, 0.42 ft (0.128 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	2.5	2.5	2.7	2.6	2.4	77	150	76	106	98	100
2	73	2.4	2.5	2.7	2.6	2.4	70	150	76	109	98	98
3	73	2.4	2.5	2.9	2.5	2.5	69	150	86	111	98	98
4	73	2.4	2.6	2.9	2.5	2.4	69	94	97	113	98	98
5	73	2.4	2.6	2.7	2.5	2.3	69	71	97	113	98	98
6	71	2.4	2.6	2.7	2.5	2.3	69	71	97	111	98	98
7	71	2.4	2.6	2.7	2.7	2.3	69	73	97	112	98	84
8	71	2.4	2.6	2.6	2.7	2.3	69	73	97	111	98	69
9	73	2.4	2.6	2.6	2.6	2.4	70	73	97	112	98	69
10	71	2.5	2.6	2.6	2.6	2.4	70	73	97	110	98	60
11	70	2.4	2.6	2.7	2.6	2.4	104	74	97	110	98	54
12	70	2.4	2.6	2.7	2.6	2.4	132	74	98	110	98	54
13	35	2.4	2.6	2.6	2.6	2.4	130	74	97	108	98	55
14	3.2	2.6	2.5	2.6	2.6	2.4	128	74	86	95	98	54
15	3.0	2.4	2.5	2.5	2.6	2.4	128	74	77	95	97	54
16	2.8	2.4	2.5	2.5	2.6	2.4	128	74	78	97	97	53
17	2.8	2.4	2.5	2.5	2.6	2.4	128	74	78	97	97	53
18	2.8	2.3	2.5	2.5	2.6	2.4	128	74	80	97	97	52
19	3.0	2.3	2.5	2.5	2.5	2.4	128	74	78	97	97	53
20	2.6	2.3	2.5	2.5	2.5	2.4	128	74	81	97	98	45
21	2.4	2.3	2.4	2.5	2.5	2.4	136	74	86	95	100	32
22	2.4	2.4	2.4	2.5	2.5	2.4	145	76	91	95	100	34
23	2.4	2.5	2.4	2.5	2.5	2.4	145	77	97	95	98	34
24	2.4	2.5	2.3	2.5	2.4	2.5	147	77	104	98	98	34
25	2.9	2.5	2.4	2.5	2.4	2.5	147	77	104	102	100	34
26	2.9	2.5	2.5	2.5	2.4	3.3	147	77	103	104	100	33
27	2.7	2.5	2.6	2.5	2.4	3.3	147	76	102	104	100	33
28	2.7	2.5	2.7	2.5	2.4	3.4	147	76	104	100	100	32
29	2.6	2.6	2.7	2.5	---	3.4	150	76	106	98	100	32
30	2.5	2.5	2.7	2.5	---	36	150	76	106	98	100	31
31	2.5	---	2.7	2.5	---	78	---	76	---	98	100	---
TOTAL	945.6	72.9	78.8	80.2	71.1	187.3	3424	2556	2770	3198	3051	1720
MEAN	30.5	2.43	2.54	2.59	2.54	6.04	114	82.5	92.3	103	98.4	57.3
MAX	73	2.6	2.7	2.9	2.7	78	150	150	106	113	100	100
MIN	2.4	2.3	2.3	2.5	2.4	2.3	69	71	76	95	97	31
AC-FT	1880	145	156	159	141	372	6790	5070	5490	6340	6050	3410
MEAN†	268	301	277	286	325	326	386	291	331	170	183	201
AC-FT†	16,470	17,940	17,040	17,580	18,040	20,070	22,940	17,900	19,720	10,450	11,270	11,980

CAL YR 1976 TOTAL 215089.9 MEAN 588 MAX 6250 MIN 2.3 AC-FT 426600
WTR YR 1977 TOTAL 18162.9 MEAN 49.8 MAX 150 MIN 2.3 AC-FT 36030

† Adjusted for diversions from Lake Owyhee and change in lake contents.

13214000 MALHEUR RIVER NEAR DREWSEY, OR

LOCATION.--Lat 43°47'05", long 118°19'50", in NE¼SE¼ sec.31, T.20 S., R.36 E., Harney County, Hydrologic Unit 17050116, on left bank 300 ft (91 m) downstream from bridge on U.S. Highway 20, 0.5 mi (0.8 km) downstream from Cottonwood Creek, 3.0 mi (4.8 km) southeast of Drewsey, and at mile 129.0 (207.6 km).

DRAINAGE AREA.--910 mi^2 (2,360 km^2), approximately.

PERIOD OF RECORD.--June 1920 to September 1921, November, December 1921, March, April 1922, April to September 1923, June 1926 to current year. Monthly discharge only for some periods, published in WSP 1317. March to September 1914 at site 13 mi (21 km) upstream; records not equivalent owing to inflow from several creeks.

REVISED RECORDS.--WSP 1093: 1927. WSP 1287: Drainage area. WSP 1397: 1921, 1927-31, 1937, drainage area (former site). WSP 1517: 1952.

GAGE.--Water-stage recorder. Datum of gage is 3,479.13 ft (1,060.439 m) above mean sea level. Prior to Apr. 27, 1923, water-stage recorder or nonrecording gage at site 0.5 mi (0.8 km) downstream at different datum. Apr. 27, 1923, to June 6, 1939, water-stage recorder at site 7 mi (11 km) downstream at different datum.

REMARKS.--Records good. Slight regulation by small reservoirs above station. Diversions for irrigation above station.

AVERAGE DISCHARGE.--51 years (water years 1927-77), 179 ft^3/s (5.069 m^3/s), 129,700 acre-ft/yr (160 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft^3/s (340 m^3/s) Dec. 23, 1964, gage height, 13.50 ft (4.115 m), from rating curve extended above 4,500 ft^3/s (127 m^3/s) on basis of contracted-opening measurement at gage height 13.20 ft (4.023 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 342 ft^3/s (9.69 m^3/s) Apr. 8, gage height, 3.81 ft (1.161 m), no peak above base of 800 ft^3/s (22.7 m^3/s); minimum, 0.64 ft^3/s (0.018 m^3/s) July 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	67	62	60	54	69	32	19	27	10	1.0	.91
2	52	67	66	49	58	64	21	22	18	8.5	1.2	.91
3	49	71	61	46	55	63	9.5	25	24	6.0	1.2	.82
4	52	74	67	42	58	64	27	29	23	5.1	1.4	.73
5	48	71	71	36	69	66	54	45	23	4.2	1.4	.82
6	60	71	71	32	57	69	74	28	21	2.6	1.2	.73
7	58	72	64	32	57	74	147	19	21	.82	1.2	.73
8	58	72	72	32	60	69	221	33	24	.73	1.4	.73
9	60	72	74	32	60	74	157	43	26	.73	1.6	.91
10	62	72	72	38	63	69	98	64	27	.82	1.4	.91
11	67	71	62	50	64	61	76	64	28	.91	2.0	.82
12	64	69	65	72	64	61	66	67	31	1.8	2.6	.82
13	62	67	65	72	69	57	61	64	31	.82	2.6	.82
14	62	69	65	72	74	48	61	54	32	.73	2.6	1.0
15	64	71	65	72	79	54	51	40	58	.82	2.0	1.2
16	64	79	65	72	83	64	37	36	66	.82	2.0	1.4
17	62	88	65	72	84	63	43	36	60	.91	3.3	1.6
18	64	78	50	72	83	55	43	36	55	1.0	3.3	2.0
19	60	78	42	72	76	46	35	35	49	1.2	3.3	2.2
20	56	72	42	72	73	46	28	34	46	1.2	2.8	2.0
21	61	71	42	46	76	46	27	31	41	1.2	1.8	2.0
22	60	71	45	46	73	45	25	32	37	1.6	1.0	2.6
23	62	71	52	46	66	52	25	34	34	2.6	.82	4.5
24	61	71	58	40	61	49	21	36	29	2.8	.82	8.0
25	62	71	58	38	64	41	21	40	25	2.6	.91	11
26	71	69	52	38	63	40	21	46	22	2.4	1.2	17
27	74	54	60	38	67	44	21	57	19	2.4	1.0	15
28	67	46	60	38	71	45	21	60	16	2.4	1.0	16
29	64	48	69	40	---	40	13	49	14	2.4	1.0	25
30	67	55	67	44	---	40	15	40	12	1.4	1.0	26
31	67	---	71	50	---	32	---	37	---	.91	1.0	---
TOTAL	1885	2078	1900	1561	1881	1710	1551.5	1255	939	72.42	51.05	149.16
MEAN	60.8	69.3	61.3	50.4	67.2	55.2	51.7	40.5	31.3	2.34	1.65	4.97
MAX	74	88	74	72	84	74	221	67	66	10	3.3	26
MIN	45	46	42	32	54	32	9.5	19	12	.73	.82	.73
AC-FT	3740	4120	3770	3100	3730	3390	3080	2490	1860	144	101	296

CAL YR 1976 TOTAL 52088.10 MEAN 142 MAX 761 MIN 4.5 AC-FT 103300
WTR YR 1977 TOTAL 15033.13 MEAN 41.2 MAX 221 MIN .73 AC-FT 29820

13214500 WARMSPRINGS RESERVOIR NEAR RIVERSIDE, OR

LOCATION.--Lat 43°35'05", long 118°12'30", in SW¼ sec.8, T.23 S., R.37 E., Malheur County, Hydrologic Unit 17050116, on Bureau of Reclamation lands, near right end of dam on Malheur River, 3 mi (5 km) northwest of Riverside, 4 mi (6 km) upstream from South Fork, and at mile 114.0 (183.4 km).

DRAINAGE AREA.--1,100 mi^2 (2,850 km^2), approximately.

PERIOD OF RECORD.--January 1920 to October 1929, December 1929 to current year.

GAGE.--Water-stage recorder. Prior to May 29, 1964, nonrecording gage read daily or weekly. Datum of gage is 3,327.0 ft (1,014.07 m) above mean sea level (levels by Bureau of Reclamation); gage readings have been reduced to elevations above mean sea level.

REMARKS.--Reservoir is formed by concrete-arch dam. Storage began in 1919. Capacity, 191,000 acre-ft (236 hm^3) between elevations 3,327.00 ft (1,014.070 m), bottom of outlet tunnel, and 3,406.00 ft (1,038.149 m), top of flashboards. Dead storage, 1,400 acre-ft (1.73 hm^3) below elevation 3,327.00 ft (1,014.070 m) not included in records. Water used to irrigate lands on both sides of river between Namorf and Ontario.

COOPERATION.--Data for computing capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 196,100 acre-ft (242 hm^3) Apr. 16, May 13, 1958, elevation, 3,407.10 ft (1,038.484 m); no contents Sept. 18 to Nov. 1, 1929, Aug. 26 to sometime in November 1935, Sept. 18 to Oct. 11, 1950, sometime in August to Sept. 30, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 87,240 acre-ft (108 hm^3) Apr. 6, elevation, 3,378.98 ft (1,029.913 m); minimum, no contents sometime in August to Sept. 30.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	3,372.06	66,070	-
Oct. 31	3,372.34	66,890	+820
Nov. 30	3,373.88	71,440	+4,550
Dec. 31	3,375.01	74,830	+3,390
CAL YR 1976	-	-	-50,670
Jan. 31	-	a78,250	+3,420
Feb. 28	3,377.87	83,700	+5,450
Mar. 31	3,378.88	86,920	+3,220
Apr. 30	3,374.21	72,430	-14,490
May 31	3,367.83	54,240	-18,190
June 30	3,357.23	29,460	-24,780
July 31	3,332.15	851	-28,610
Aug. 31	-	0	-851
Sept. 30	3,327.00	0	0
WTR YR 1977	-	-	-66,070

a Contents interpolated.

13215000 MALHEUR RIVER BELOW WARMSPRINGS RESERVOIR, NEAR RIVERSIDE, OR

LOCATION.—Lat 43°34'15", long 118°12'05", in SW¼ sec.17, T.23 S., R.37 E., Malheur County, Hydrologic Unit 17050116, on left bank 1.0 mi (1.6 km) downstream from Warmsprings Dam, 3.0 mi (4.8 km) upstream from South Fork, 4.0 mi (6.4 km) northwest of Riverside, and at mile 113.0 (181.8 km).

DRAINAGE AREA.—1,100 mi^2 (2,850 km^2), approximately.

PERIOD OF RECORD.—January 1906 to March 1907 and December 1908 (gage heights only), January 1909 to September 1910, December 1914 to July 1917, March 1919 to current year. Monthly discharge only for some periods, published in WSP 1317. Figures of discharge for January 1906 to March 1907, published in WSP 272 and 370, have been found to be unreliable and should not be used. Published as Middle Fork of Malheur River at Riverside 1906-7, as Middle Fork of Malheur River above South Fork, at Riverside 1909-10, as Malheur River above South Fork, at Riverside in WSP 370, 1906-10, and as Malheur River at Warmsprings reservoir site, near Riverside 1914-17.

REVISED RECORDS.—WSP 833: 1936. WSP 1063: 1942-45. WSP 1397: 1909-10, 1917. WSP 1447: 1955. See also PERIOD OF RECORD.

GAGE.—Water-stage recorder and concrete control. Altitude of gage is 3,305 ft (1,007 m), by barometer. See WSP 1317 or 1737 for history of changes prior to Sept. 29, 1949.

REMARKS.—Records good except those below 100 ft^3/s (2.83 m^3/s), which are fair. Flow completely regulated since November 1919 by Warmsprings Reservoir (see station 13214500). Diversions for irrigation above station.

AVERAGE DISCHARGE.—58 years (water years 1920-77), 176 ft^3/s (4.984 m /s), 127,500 acre-ft/yr (157 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge observed, 7,200 ft^3/s (204 m^3/s) Mar. 1, 1910, gage height, 10.7 ft (3.26 m), site and datum then in use, from rating curve extended above 820 ft^3/s (23.2 m^3/s); no flow at times.

EXTREMES FOR CURRENT YEAR.—Maximum discharge, 607 ft^3/s (17.2 m^3/s) May 1-3, July 5; maximum gage height, 5.14 ft (1.567 m) May 1; minimum daily discharge, 0.10 ft^3/s (0.003 m^3/s) Oct. 12 to Apr. 5, Sept. 19, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	157	.10	.10	.10	.10	.10	.10	602	157	558	85	2.2
2	157	.10	.10	.10	.10	.10	.10	607	182	580	34	2.0
3	154	.10	.10	.10	.10	.10	.10	607	217	591	8.1	1.8
4	154	.10	.10	.10	.10	.10	.10	508	280	591	1.4	1.7
5	138	.10	.10	.10	.10	.10	.10	437	375	607	1.3	1.6
6	126	.10	.10	.10	.10	.10	116	426	420	558	1.2	1.4
7	126	.10	.10	.10	.10	.10	144	426	470	541	1.4	1.3
8	126	.10	.10	.10	.10	.10	123	395	508	530	1.4	1.2
9	126	.10	.10	.10	.10	.10	123	340	519	525	1.4	1.0
10	126	.10	.10	.10	.10	.10	123	325	525	503	1.4	.70
11	44	.10	.10	.10	.10	.10	100	320	497	486	1.3	.60
12	.10	.10	.10	.10	.10	.10	90	325	459	481	1.3	.40
13	.10	.10	.10	.10	.10	.10	118	325	405	481	1.3	.50
14	.10	.10	.10	.10	.10	.10	132	325	350	481	1.3	.30
15	.10	.10	.10	.10	.10	.10	189	325	300	486	1.3	.25
16	.10	.10	.10	.10	.10	.10	243	325	300	492	1.4	.20
17	.10	.10	.10	.10	.10	.10	285	290	300	486	1.6	.15
18	.10	.10	.10	.10	.10	.10	335	266	340	453	1.6	.15
19	.10	.10	.10	.10	.10	.10	385	225	365	415	1.7	.10
20	.10	.10	.10	.10	.10	.10	415	217	390	390	1.8	.20
21	.10	.10	.10	.10	.10	.10	442	221	405	355	1.8	.15
22	.10	.10	.10	.10	.10	.10	442	225	426	340	2.0	.10
23	.10	.10	.10	.10	.10	.10	453	230	437	300	2.2	.15
24	.10	.10	.10	.10	.10	.10	475	225	459	280	2.2	.70
25	.10	.10	.10	.10	.10	.10	481	230	497	266	2.2	2.1
26	.10	.10	.10	.10	.10	.10	492	230	525	252	2.2	4.4
27	.10	.10	.10	.10	.10	.10	558	175	563	221	2.2	7.6
28	.10	.10	.10	.10	.10	.10	585	161	563	201	2.2	12
29	.10	.10	.10	.10	---	.10	596	150	552	178	2.8	15
30	.10	.10	.10	.10	---	.10	596	150	530	154	3.1	17
31	.10	---	.10	.10	---	.10	---	154	---	129	2.5	---
TOTAL	1436.00	3.00	3.10	3.10	2.80	3.10	8041.50	9767	12316	12911	176.6	76.95
MEAN	46.3	.10	.10	.10	.10	.10	268	315	411	416	5.70	2.57
MAX	157	.10	.10	.10	.10	.10	596	607	563	607	85	17
MIN	.10	.10	.10	.10	.10	.10	.10	150	157	129	1.2	.10
AC-FT	2850	6.0	6.1	6.1	5.6	6.1	15950	19370	24430	25610	350	153

CAL YR 1976 TOTAL 76687.80 MEAN 210 MAX 607 MIN .10 AC-FT 152100
WTR YR 1977 TOTAL 44740.15 MEAN 123 MAX 607 MIN .10 AC-FT 88740

13216500 NORTH FORK MALHEUR RIVER ABOVE BEULAH RESERVOIR, NEAR BEULAH, OR

LOCATION.--Lat 43°57'01", long 118°10'28", in NW¼NE¼ sec.4, T.19 S., R.37 E., Malheur County, Hydrologic Unit 17050116, on left bank 500 ft (152 m) upstream from Beulah Reservoir, 2.5 mi (4.0 km) upstream from Warm Springs Creek, 3.5 mi (5.6 km) northwest of Beulah, and at mile 18.0 (29.0 km).

DRAINAGE AREA.--355 mi² (919 km²).

PERIOD OF RECORD.--January to September 1914 (published as "at Scott's Ranch, near Beulah"), June 1936 to current year. Published as "above Agency Valley Reservoir, near Beulah", June 1936 to September 1968.

REVISED RECORDS.--WSP 1934: 1960(M).

GAGE.--Water-stage recorder. Datum of gage is 3,349.4 ft (1,020.90 m) above mean sea level. Jan. 1 to Sept. 30, 1914, nonrecording gage and June 10, 1936, to Oct. 14, 1958, water-stage recorder at site 0.5 mi (0.8 km) upstream at different datums. Oct. 15, 1958, to Oct. 8, 1976, water-stage recorder at present site at datum 1.6 ft (0.49 m) higher.

REMARKS.--Records good except those for periods of no gage-height record, which are fair. No regulation. Diversions for irrigation above station.

AVERAGE DISCHARGE.--41 years (water years 1937-77), 129 ft³/s (3.653 m³/s), 93,460 acre-ft/yr (115 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,970 ft³/s (112 m³/s) Dec. 23, 1964, gage height, 9.90 ft (3.018 m), present datum, from floodmark, from rating curve extended above 1,300 ft³/s (36.8 m³/s) on basis of slope-area measurement of peak flow; maximum gage height, 11.0 ft (3.35 m), present datum, sometime during period Dec. 17-23, 1964 (ice jam); minimum discharge, 8.5 ft³/s (0.24 m³/s) Dec. 13, 1967, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 380 ft³/s (10.8 m³/s) Apr. 7, no peak above base of 500 ft³/s (14.2 m³/s); maximum recorded gage height, 3.22 ft (0.981 m) Nov. 28, backwater from ice; minimum discharge, 20 ft³/s (0.57 m³/s) Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	60	49	47	59	57	55	88	83	46	28	41
2	54	61	51	51	62	54	53	98	82	47	32	39
3	55	60	54	61	57	57	65	110	81	41	28	38
4	54	59	68	50	56	55	85	130	80	36	27	38
5	54	58	58	40	53	54	103	110	80	43	29	36
6	55	58	50	30	58	58	220	80	80	45	32	34
7	55	57	58	25	59	59	380	88	79	41	32	36
8	50	56	62	25	57	60	320	105	78	34	30	36
9	47	56	62	25	58	64	260	125	78	35	28	36
10	49	56	54	27	59	59	210	150	78	38	24	36
11	49	55	51	30	60	53	195	100	77	40	25	36
12	51	54	52	32	59	60	180	86	76	40	26	37
13	52	53	56	35	61	54	170	78	76	39	30	37
14	54	56	52	38	63	49	158	76	76	41	37	37
15	52	60	53	38	62	56	145	72	75	37	36	38
16	52	68	56	38	61	58	135	69	70	36	34	40
17	54	61	52	37	61	60	128	68	62	35	33	41
18	54	59	40	36	61	57	122	68	61	37	33	42
19	53	58	42	35	58	57	113	70	64	38	33	42
20	54	56	38	35	58	58	108	72	65	38	32	46
21	56	58	40	35	59	57	102	76	59	31	34	44
22	58	56	57	35	57	60	96	80	55	34	29	44
23	57	56	70	36	51	68	92	86	54	37	28	44
24	56	55	62	37	58	62	87	94	50	37	37	47
25	62	58	56	37	51	60	83	100	43	38	45	47
26	65	51	66	36	58	60	82	106	42	36	45	46
27	60	31	64	35	53	62	81	98	42	36	39	45
28	59	30	53	35	57	56	80	94	42	34	37	47
29	59	30	42	35	---	59	80	90	43	33	37	56
30	60	34	42	36	---	60	80	86	42	30	38	48
31	59	---	44	40	---	55	---	84	---	27	43	---
TOTAL	1703	1620	1654	1132	1626	1798	4068	2837	1973	1160	1021	1234
MEAN	54.9	54.0	53.4	36.5	58.1	58.0	136	91.5	65.8	37.4	32.9	41.1
MAX	65	68	70	61	63	68	380	150	83	47	45	56
MIN	47	30	38	25	51	49	53	68	42	27	24	34
AC-FT	3380	3210	3280	2250	3230	3570	8070	5630	3910	2300	2030	2450

CAL YR 1976 TOTAL 38571 MEAN 105 MAX 402 MIN 30 AC-FT 76510
WTR YR 1977 TOTAL 21826 MEAN 59.8 MAX 380 MIN 24 AC-FT 43290

NOTE.--No gage-height record Apr. 4 to May 12, May 16 to June 17.

13217000 BEULAH RESERVOIR AT BEULAH, OR

LOCATION.--Lat 43°54'41", long 118°09'25", in SW¼SE¼ sec.15, T.19 S., R.37 E., Malheur County, Hydrologic Unit 17050116, in control house at dam on North Fork Malheur River, 0.2 mi (0.3 km) northwest of Beulah, and at mile 15.0 (24.1 km).

DRAINAGE AREA.--440 mi^2 (1,140 km^2), approximately.

PERIOD OF RECORD.--December 1935 to current year. Prior to October 1968, published as Agency Valley Reservoir at Beulah.

REVISED RECORDS.--WSP 1397: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by earthfill, rock-faced dam. Storage began December 1935. Capacity, 59,920 acre-ft (73.9 hm^3) between elevations 3,263.21 ft (994.626 m), bottom of outlet tunnel, and 3,340.0 ft (1,018.03 m), top of spillway gates; with gates open the capacity is 32,220 acre-ft (39.7 hm^3). No dead storage. Water is used for irrigation of lands below Juntura, on Vale project of Bureau of Reclamation.

COOPERATION.--Daily elevations Oct. 1 to June 11 furnished by Vale-Oregon Irrigation District, and capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 62,770 acre-ft (77.4 hm^3) May 3, 1941, elevation, 3,341.50 ft (1,018.489 m); no contents Sept. 17 to Oct. 13, 1950, Aug. 28 to Oct. 4, 1955, Aug. 13 to Oct. 1, 1961, Sept. 21 to Oct. 5, 1968, sometime Aug. 1-31 to Sept. 30, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 31,820 acre-ft (39.2 hm^3) Apr. 4, elevation, 3,322.70 ft (1,012.759 m); no contents, sometime Aug. 1-31 to Sept. 30.

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	3,307.47	14,570	-
Oct. 31	3,308.13	15,160	+590
Nov. 30	3,311.50	18,460	+3,300
Dec. 31	3,314.45	21,600	+3,140
CAL YR 1976	-	-	+1,580
Jan. 31	3,317.15	24,750	+3,150
Feb. 28	3,319.94	28,170	+3,420
Mar. 31	3,322.42	31,440	+3,270
Apr. 30	3,317.45	25,120	-6,320
May 31	3,314.52	21,680	-3,440
June 30	3,302.45	10,620	-11,060
July 31	3,276.95	490	-10,130
Aug. 31	-	0	-490
Sept.30	-	0	0
WTR YR 1977	-	-	-14,570

13217500 NORTH FORK MALHEUR RIVER AT BEULAH, OR

LOCATION.--Lat 43°54'28", long 118°09'08", in NW¼NE¼ sec.22, T.19 S., R.37 E., Malheur County, Hydrologic Unit 17050116, on left bank at Beulah, 0.3 mi (0.5 km) downstream from Agency Valley Dam, 12 mi (19 km) northwest of Juntura, and at mile 14.5 (23.3 km).

DRAINAGE AREA.--440 mi² (1,140 km²), approximately.

PERIOD OF RECORD.--June 1926 to current year. Published as "near Beulah" June 1926 to September 1935.

REVISED RECORDS.--WSP 1397: 1927-32, 1934, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,261.20 ft (994.014 m) above mean sea level. Prior to Apr. 25, 1926, water-stage recorder at site 1 mi (2 km) downstream at different datum. Apr. 25, 1936, to Sept. 30, 1949, nonrecording gage at site 20 ft (6 m) downstream at datum 1.0 ft (0.3 m) higher. Oct. 1, 1949, to June 30, 1964, at present site at datum 1.0 ft (0.3 m) higher.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since 1935 by Beulah Reservoir (see station 13217000). Diversions for irrigation above station.

AVERAGE DISCHARGE.--42 years (water years 1936-77), 140 ft³/s (3.965 m³/s), 101,400 acre-ft/yr (125 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,000 ft³/s (198 m³/s) May 7, 1942, gage height, 8.4 ft (2.56 m) from floodmark, caused by failure of gates at Agency Valley Dam, from rating curve extended above 1,100 ft³/s (31.2 m³/s) on basis of computation of peak flow over dam; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 290 ft³/s (8.21 m³/s) Apr. 21, gage height, 3.27 ft (0.997 m); minimum, 0.01 ft³/s (<0.001 m³/s) sometime Jan. 6-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	.18	.18	.12	.09	.10	.20	272	193	250	140	41
2	110	.18	.18	.13	.09	.14	.20	276	238	250	120	39
3	112	.16	.18	.13	.09	.18	.20	265	250	247	98	37
4	112	.16	.18	.13	.10	.16	90	238	256	241	40	36
5	112	.14	.18	.12	.10	.14	114	214	256	241	33	36
6	110	.14	.16	.12	.10	.14	110	178	256	238	35	33
7	110	.14	.16	.11	.10	.13	114	122	253	235	37	34
8	110	.14	.16	.10	.10	.13	114	104	253	235	33	34
9	110	.14	.16	.09	.10	.13	116	102	253	232	32	35
10	112	.16	.14	.08	.10	.14	118	94	253	235	26	36
11	35	.16	.16	.08	.10	.14	118	68	253	232	28	38
12	3.6	.14	.14	.08	.10	.14	110	36	253	229	28	38
13	1.6	.14	.14	.08	.10	.16	106	33	253	226	31	38
14	.80	.16	.16	.08	.10	.16	135	34	250	223	42	38
15	.56	.16	.16	.08	.10	.16	173	52	250	223	39	38
16	.42	.16	.14	.08	.10	.14	185	66	250	220	37	40
17	.32	.14	.13	.08	.10	.14	217	66	259	220	36	41
18	.28	.14	.13	.08	.10	.14	241	66	269	214	35	42
19	.28	.16	.13	.08	.10	.14	253	55	269	214	34	42
20	.25	.16	.13	.08	.09	.14	276	50	265	211	33	45
21	.25	.14	.13	.09	.08	.13	286	66	265	205	34	44
22	.22	.14	.14	.09	.08	.13	286	76	265	203	31	43
23	.20	.14	.13	.09	.08	.13	283	110	262	198	29	43
24	.20	.14	.12	.09	.08	.13	283	128	262	195	35	44
25	.20	.14	.12	.08	.07	.13	283	130	259	190	45	45
26	.20	.14	.12	.08	.07	.13	279	148	259	188	45	45
27	.20	.14	.12	.08	.07	.13	279	155	256	183	39	44
28	.18	.16	.12	.08	.08	.13	276	135	253	178	38	45
29	.18	.16	.12	.09	---	.14	276	124	250	170	37	53
30	.18	.18	.12	.09	---	.16	272	126	250	163	38	48
31	.18	---	.12	.09	---	.18	---	135	---	155	43	---
TOTAL	1151.30	4.54	4.46	2.88	2.57	4.37	5393.60	3724	7613	6644	1351	1215
MEAN	37.1	.15	.14	.093	.092	.14	180	120	254	214	43.6	40.5
MAX	112	.18	.18	.13	.10	.18	286	276	269	250	140	53
MIN	.18	.14	.12	.08	.07	.10	.20	33	193	155	26	33
AC-FT	2280	9.0	8.8	5.7	5.1	8.7	10700	7390	15100	13180	2680	2410

CAL YR 1976 TOTAL 39037.58 MEAN 107 MAX 475 MIN .05 AC-FT 77430
WTR YR 1977 TOTAL 27110.72 MEAN 74.3 MAX 286 MIN .07 AC-FT 53770

13220000 MALHEUR RIVER AT LITTLE VALLEY, NEAR HOPE, OR

LOCATION.--Lat 43°53'58", long 117°30'25", in SE¼SE¼ sec.24, T.19 S., R.42 E., Malheur County, Hydrologic Unit 17050117, on right bank 500 ft (152 m) downstream from highway bridge at Little Valley, 8 mi (13 km) southwest of Hope, 14 mi (23 km) southwest of Vale, and at mile 45.6 (73.4 km).

DRAINAGE AREA.--3,010 mi^2 (7,800 km^2), approximately.

PERIOD OF RECORD.--April 1949 to current year.

REVISED RECORDS.--WSP 1217: 1949(M), 1950(M). WSP 1397: 1950. WSP 1737: 1952(M).

GAGE.--Water-stage recorder. Datum of gage is 2,424.03 ft (738.844 m) above mean sea level.

REMARKS.--Records good. Flow regulated by Warmsprings and Beulah Reservoirs (see stations 13214500 and 13217000). Vale-Oregon Canal diverted 108,800 acre-ft (134 hm^3) above station at Namorf in sec.31, T.20 S., R.41 E., for supplying Bully Creek Reservoir and for irrigation. Many small diversions for irrigation above station.

AVERAGE DISCHARGE.--28 years, 195 ft^3/s (5.522 m^3/s), 141,300 acre-ft/yr (174 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 ft^3/s (348 m^3/s) Feb. 24, 1957, gage height, 11.5 ft (3.51 m), from floodmark, from rating curve extended above 5,500 ft^3/s (156 m^3/s) on basis of slope-area measurement of peak flow; minimum, 6.8 ft^3/s (0.19 m^3/s) Jan. 16, 1972.

EXTREMES OUTSIDE PERIOD OF RECORD.--The two greatest floods occurred March 1894 and March 1910, on basis of records for former station near Namorf.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 380 ft^3/s (10.8 m^3/s) June 8, gage height, 3.47 ft (1.058 m); minimum daily, 7.4 ft^3/s (0.21 m^3/s) Jan. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	21	15	13	43	13	9.4	241	19	177	50	34
2	66	20	15	12	49	13	8.8	278	13	194	35	30
3	69	19	16	15	55	13	8.3	268	15	212	29	32
4	69	19	16	14	52	12	8.3	271	24	215	29	33
5	69	18	16	11	50	12	7.7	221	46	209	118	34
6	70	18	15	9.0	48	12	7.7	177	115	215	72	29
7	67	18	15	8.0	48	12	7.7	171	180	197	41	25
8	69	17	15	7.5	46	12	88	150	244	177	34	23
9	69	18	15	7.5	55	12	128	133	228	166	28	21
10	67	18	14	7.4	55	12	126	104	228	182	21	21
11	67	18	14	9.0	56	12	128	88	234	166	18	21
12	72	18	13	11	64	12	108	98	225	146	17	18
13	62	17	13	41	69	12	66	94	203	138	20	17
14	46	17	13	36	66	12	53	88	174	138	19	17
15	41	18	13	36	58	12	45	72	158	131	19	20
16	39	18	13	36	61	12	61	72	133	141	21	21
17	36	18	13	36	32	11	115	88	115	146	28	23
18	35	18	13	35	23	11	119	92	115	158	25	24
19	50	18	13	35	19	11	163	83	136	133	43	27
20	42	18	13	36	17	9.9	206	69	163	126	35	29
21	59	17	13	37	17	9.9	191	40	158	128	24	32
22	45	17	13	38	17	9.9	174	32	161	115	23	32
23	28	17	13	39	16	11	161	31	153	108	22	31
24	26	17	13	39	15	9.9	143	52	148	90	24	35
25	25	17	13	39	14	11	155	42	156	64	28	35
26	23	17	13	39	14	9.9	161	48	172	56	30	33
27	22	15	13	38	13	11	163	85	206	102	31	34
28	21	15	12	38	15	8.8	194	74	200	131	43	35
29	21	16	12	37	---	9.4	218	43	180	104	41	37
30	21	15	13	37	---	9.4	228	33	182	90	37	43
31	21	---	13	39	---	9.4	---	27	---	79	36	---
TOTAL	1486	527	424	835.4	1087	347.5	3251.9	3365	4484	4434	1041	846
MEAN	47.9	17.6	13.7	26.9	38.8	11.2	108	109	149	143	33.6	28.2
MAX	72	21	16	41	69	13	228	278	244	215	118	43
MIN	21	15	12	7.4	13	8.8	7.7	27	13	56	17	17
AC-FT	2950	1050	841	1660	2160	689	6450	6670	8890	8790	2060	1680

CAL YR 1976 TOTAL 46550.0 MEAN 127 MAX 761 MIN 12 AC-FT 92330
WTR YR 1977 TOTAL 22128.8 MEAN 60.6 MAX 278 MIN 7.4 AC-FT 43890

13220000 MALHEUR RIVER AT LITTLE VALLEY, NEAR HOPE, OR

LOCATION.--Lat 43°53'58", long 117°30'25", in SE¼SE¼ sec.24, T.19 S., R.42 E., Malheur County, Hydrologic Unit 17050117, on right bank 500 ft (152 m) downstream from highway bridge at Little Valley, 8 mi (13 km) southwest of Hope, 14 mi (23 km) southwest of Vale, and at mile 45.6 (73.4 km).

DRAINAGE AREA.--3,010 mi^2 (7,800 km^2), approximately.

PERIOD OF RECORD.--April 1949 to current year.

REVISED RECORDS.--WSP 1217: 1949(M), 1950(M). WSP 1397: 1950. WSP 1737: 1952(M).

GAGE.--Water-stage recorder. Datum of gage is 2,424.03 ft (738.844 m) above mean sea level.

REMARKS.--Records good. Flow regulated by Warmsprings and Beulah Reservoirs (see stations 13214500 and 13217000). Vale-Oregon Canal diverted 108,800 acre-ft (134 hm^3) above station at Namorf in sec.31, T.20 S., R.41 E., for supplying Bully Creek Reservoir and for irrigation. Many small diversions for irrigation above station.

AVERAGE DISCHARGE.--28 years, 195 ft^3/s (5.522 m^3/s), 141,300 acre-ft/yr (174 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 ft^3/s (348 m^3/s) Feb. 24, 1957, gage height, 11.5 ft (3.51 m), from floodmark, from rating curve extended above 5,500 ft^3/s (156 m^3/s) on basis of slope-area measurement of peak flow; minimum, 6.8 ft^3/s (0.19 m^3/s) Jan. 16, 1972.

EXTREMES OUTSIDE PERIOD OF RECORD.--The two greatest floods occurred March 1894 and March 1910, on basis of records for former station near Namorf.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 380 ft^3/s (10.8 m^3/s) June 8, gage height, 3.47 ft (1.058 m); minimum daily, 7.4 ft^3/s (0.21 m^3/s) Jan. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	21	15	13	43	13	9.4	241	19	177	50	34
2	66	20	15	12	49	13	8.8	278	13	194	35	30
3	69	19	16	15	55	13	8.3	268	15	212	29	32
4	69	19	16	14	52	12	8.3	271	24	215	29	33
5	69	18	16	11	50	12	7.7	221	46	209	118	34
6	70	18	15	9.0	48	12	7.7	177	115	215	72	29
7	67	18	15	8.0	48	12	7.7	171	180	197	41	25
8	69	17	15	7.5	46	12	88	150	244	177	34	23
9	69	18	15	7.5	55	12	128	133	228	166	28	21
10	67	18	14	7.4	55	12	126	104	228	182	21	21
11	67	18	14	9.0	56	12	128	88	234	166	18	21
12	72	18	13	11	64	12	108	98	225	146	17	18
13	62	17	13	41	69	12	66	94	203	138	20	17
14	46	17	13	36	66	12	53	88	174	138	19	17
15	41	18	13	36	58	12	45	72	158	131	19	20
16	39	18	13	36	61	12	61	72	133	141	21	21
17	36	18	13	36	32	11	115	88	115	146	28	23
18	35	18	13	35	23	11	119	92	115	158	25	24
19	50	18	13	35	19	11	163	83	136	133	43	27
20	42	18	13	36	17	9.9	206	69	163	126	35	29
21	59	17	13	37	17	9.9	191	40	158	128	24	32
22	45	17	13	38	17	9.9	174	32	161	115	23	32
23	28	17	13	39	16	11	161	31	153	108	22	31
24	26	17	13	39	15	9.9	143	52	148	90	24	35
25	25	17	13	39	14	11	155	42	156	64	28	35
26	23	17	13	39	14	9.9	161	48	172	56	30	33
27	22	15	13	38	13	11	163	85	206	102	31	34
28	21	15	12	38	15	8.8	194	74	200	131	43	35
29	21	16	12	37	---	9.4	218	43	180	104	41	37
30	21	15	13	37	---	9.4	228	33	182	90	37	43
31	21	---	13	39	---	9.4	---	27	---	79	36	---
TOTAL	1486	527	424	835.4	1087	347.5	3251.9	3365	4484	4434	1041	846
MEAN	47.9	17.6	13.7	26.9	38.8	11.2	108	109	149	143	33.6	28.2
MAX	72	21	16	41	69	13	228	278	244	215	118	43
MIN	21	15	12	7.4	13	8.8	7.7	27	13	56	17	17
AC-FT	2950	1050	841	1660	2160	689	6450	6670	8890	8790	2060	1680

CAL YR 1976 TOTAL 46550.0 MEAN 127 MAX 761 MIN 12 AC-FT 92330
WTR YR 1977 TOTAL 22128.8 MEAN 60.6 MAX 278 MIN 7.4 AC-FT 43890

13226500 BULLY CREEK AT WARMSPRINGS, NEAR VALE, OR

LOCATION.--Lat 44°01'10", long 117°27'35", in SE¼NW¼ sec.9, T.18 S., R.43 E., Malheur County, Hydrologic Unit 17050118, on left bank 400 ft (122 m) downstream from Cottonwood Creek, 2.7 mi (4.3 km) upstream from Bully Creek Dam, 11.4 mi (18.3 km) northwest of Vale, and at mile 17.2 (27.7 km).

DRAINAGE AREA.--539 mi^2 (1,396 km^2).

PERIOD OF RECORD.--September 1903 to February 1904, February 1905 to March 1907, February 1910, January 1911 to May 1917, March 1922 to June 1923, October 1963 to current year. Monthly discharge only for some periods, published in WSP 1317. Published as "near Vale" 1903, 1907, and as "above Vale" 1904-6, 1910.

REVISED RECORDS.--WSP 1317: Drainage area (former site). WSP 1397: 1904-6, 1911, 1914, 1915.

GAGE.--Water-stage recorder. Datum of gage is 2,527.21 ft (770.294 m) above mean sea level (Bureau of Reclamation bench mark). Prior to July 1, 1923, nonrecording gages within 0.5 mi (0.8 km) downstream at different datums.

REMARKS.--Records good. No regulation. Many diversions for irrigation above station.

AVERAGE DISCHARGE.--20 years (water years 1906, 1912-16, 1964-77), 40.3 ft^3/s (1.141 m^3/s), 29,200 acre-ft/yr (36.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,800 ft^3/s (362 m^3/s) Dec. 22, 1964, gage height, 8.68 ft (2.646 m), from rating curve extended above 200 ft^3/s (5.66 m^3/s) on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 120 ft^3/s (3.40 m^3/s) and maximum discharge, 316 ft^3/s (8.95 m^3/s) June 11, gage height, 2.40 ft (0.732 m); no flow at times July to September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	6.5	4.9	5.3	12	3.9	.30	.60	1.1	.50	.00	.30
2	5.7	6.5	5.7	6.5	11	2.7	.24	.80	1.3	.65	.00	.24
3	5.7	6.5	6.5	9.6	9.5	2.4	.27	.75	.80	.75	.06	.18
4	5.7	7.0	9.0	7.0	8.5	1.9	.21	.75	1.3	.75	.03	.12
5	5.7	8.0	7.2	5.0	7.5	1.7	.40	.65	.70	1.3	.09	.09
6	5.7	9.6	6.6	4.0	8.0	1.5	.21	.30	1.3	1.3	.21	.06
7	5.7	9.6	7.5	4.0	8.5	1.1	.27	.45	2.7	1.1	.09	.06
8	6.1	9.0	8.6	4.0	8.5	.80	.45	.70	4.2	.45	.09	.03
9	6.5	9.0	7.5	4.3	8.5	.60	.50	.95	1.7	.12	.27	.06
10	5.7	9.0	6.2	5.0	8.5	.50	.45	.80	1.1	.21	.50	.09
11	5.7	9.6	7.1	5.5	8.6	.50	.40	.95	30	.00	.35	.12
12	6.1	9.6	4.6	6.0	9.0	.55	.45	1.7	45	.45	.21	.12
13	6.5	8.0	6.5	6.5	9.6	.50	.55	1.3	6.1	.55	.15	.12
14	7.0	8.5	7.1	7.0	10	.27	.65	.50	2.7	.60	.30	.12
15	6.1	8.0	5.7	7.5	11	.24	.65	.35	3.0	.24	.55	.12
16	6.1	9.0	4.5	6.5	10	.21	.65	.35	1.5	.00	.35	.55
17	5.3	9.0	4.2	6.7	10	.30	.70	.65	.80	.00	.21	.00
18	5.3	9.0	4.5	7.2	10	.35	.80	.60	.70	.00	.12	.00
19	6.1	9.6	4.2	6.6	9.0	.21	.95	.80	.60	.09	.00	.00
20	3.9	9.6	3.9	6.8	7.5	.24	.80	1.1	.65	.00	.12	.00
21	3.6	9.6	5.3	8.0	8.0	.21	.80	.95	.65	.15	.21	.00
22	3.6	9.6	7.0	7.0	4.9	.27	.65	1.1	.55	.21	.24	.00
23	5.3	9.6	8.5	8.0	3.7	.24	.50	.70	.60	.06	.27	.00
24	5.7	9.0	8.0	6.8	3.3	.24	.45	.60	.60	.00	.60	.00
25	6.1	8.5	7.5	7.5	2.4	.50	.80	.50	.60	.00	2.2	.00
26	6.1	6.5	9.0	8.2	2.7	.50	.45	.75	.60	.00	2.7	.03
27	7.5	3.3	8.0	8.0	3.0	.21	.55	2.4	.50	.00	2.4	.00
28	5.7	4.4	5.7	7.5	3.6	.21	.50	1.5	.50	.00	2.4	.06
29	5.7	6.1	4.9	7.0	---	.18	.30	1.3	.45	.24	1.5	.35
30	6.5	5.3	4.9	7.0	---	.18	.27	1.3	.45	.03	.60	.35
31	6.1	---	5.0	8.0	---	.21	---	.75	---	.00	.45	---
TOTAL	177.8	242.5	195.8	204.0	216.8	23.42	15.17	26.90	112.75	9.75	17.27	3.17
MEAN	5.74	8.08	6.32	6.58	7.74	.76	.51	.87	3.76	.31	.56	.11
MAX	7.5	9.6	9.0	9.6	12	3.9	.95	2.4	45	1.3	2.7	.55
MIN	3.6	3.3	3.9	4.0	2.4	.18	.21	.30	.45	.00	.00	.00
AC-FT	353	481	388	405	430	46	30	53	224	19	34	6.3

CAL YR 1976 TOTAL 5739.70 MEAN 15.7 MAX 320 MIN .50 AC-FT 11380
WTR YR 1977 TOTAL 1245.33 MEAN 3.41 MAX 45 MIN .00 AC-FT 2470

13226800 BULLY CREEK RESERVOIR NEAR VALE, OR

LOCATION.--Lat 44°00'50", long 117°23'45", in SE¼NW¼ sec.12, T.18 S., R.43 E., Malheur County, Hydrologic Unit 17050118, U.S. Bureau of Reclamation land, in control chamber at dam on Bully Creek, 8.0 mi (12.9 km) northwest of Vale, and at mile 12.5 (20.1 km).

DRAINAGE AREA.--567 mi² (1,417 km²).

PERIOD OF RECORD.--February 1963 to current year.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by earthfill, rock-faced dam. Storage began Feb. 1, 1963. Capacity, 29,980 acre-ft (37.0 hm³) between elevations 2,456.58 ft (748.766 m), outlet works, and 2,516.00 ft (766.877 m), spillway crest. Dead storage, 1,650 acre-ft (2.03 hm³) below elevation 2,456.58 ft (748.766 m). Figures given herein do not include dead storage. Water used for irrigation lands of Vale-Oregon Irrigation District. Bully Creek Reservoir feed canal diverts from Malheur River by way of Vale Oregon canal (see station 13220000).

COOPERATION.--Capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents not determined, occurred during period Apr. 4 to May 2, 1969, elevation, above 2,516.00 ft (766.877 m), spillway crest; no usable contents at times in 1973, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 15,860 acre-ft (19.6 hm³) Apr. 14, elevation, 2,499.40 ft (761.817 m); no usable contents observed Aug. 31, Sept. 30.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2,483.3	6,700	-
Oct. 31	-	a8,080	+1,380
Nov. 30	-	a10,450	+2,370
Dec. 31	-	a12,260	+1,810
CAL YR 1976	-	-	-1,940
Jan. 31	2,494.90	12,840	+580
Feb. 28	2,496.20	13,680	+840
Mar. 31	2,498.10	14,950	+1,270
Apr. 30	2,496.70	14,000	-950
May 31	2,491.50	10,780	-3,220
June 30	2,482.20	6,260	-4,520
July 31	2,466.90	1,700	-4,560
Aug. 31	-	0	-1,700
Sept. 30	-	0	0
WTR YR 1977	-	-	-6,700

a Contents interpolated.

13269300 NORTH FORK BURNT RIVER NEAR WHITNEY, OR

LOCATION.--Lat 44°36'00", long 118°15'10", in NE¼ sec.23, T.11 S., R.36 E., Baker County, Hydrologic Unit 17050202, Wallowa Whitman National Forest, on right bank 950 ft (290 m) upstream from Petticoat Creek, 1.0 mi (1.6 km) downstream from U.S. Bureau of Reclamation damsite, 4.5 mi (7.2 km) southeast of Whitney, and 11.5 mi (18.5 km) northwest of Unity.

DRAINAGE AREA.--110 mi² (285 km²), approximately.

PERIOD OF RECORD.--June 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,000 ft (1,220 m), from topographic map.

REMARKS.--Records good. Some regulation from irrigation and mining operations upstream. A transmountain diversion from headwaters of Middle Fork John Day River delivers as much as 12 ft³/s (0.34 m³/s) to North Fork Burnt River above station.

AVERAGE DISCHARGE.--13 years, 49.8 ft³/s (1.410 m³/s), 36,080 acre-ft/yr (44.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,190 ft³/s (33.7 m³/s) Apr. 6, 1971, gage height, 4.31 ft (1.314 m); maximum gage height, 4.95 ft (1.509 m) Jan. 29, 1965 (ice jam); minimum discharge, 0.14 ft³/s (0.004 m³/s) Aug. 15, 1977, but may have been less when stage fell below inlets July 19 to Aug. 17, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 74 ft³/s (2.10 m³/s) Apr. 7, no peak above base of 400 ft³/s (11.3 m³/s); maximum gage height, 1.84 ft (0.561 m) Mar. 13 (ice jam); minimum discharge, 0.14 ft³/s (0.004 m³/s) Aug. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	4.8	5.3	3.6	3.3	6.3	9.5	8.2	6.3	1.7	.50	1.2
2	3.3	5.0	5.3	4.0	3.3	6.6	11	9.9	7.6	2.0	.37	1.1
3	3.8	5.0	4.4	4.0	3.3	6.6	14	11	7.4	1.8	.37	1.0
4	3.8	4.8	5.0	4.1	3.3	6.6	25	12	7.8	1.7	.37	.84
5	3.8	4.8	4.6	3.8	3.1	6.4	30	12	7.4	1.4	.27	.84
6	3.5	4.6	4.2	3.3	3.1	6.6	38	11	7.8	1.4	.37	.84
7	3.5	4.8	4.5	2.9	3.3	7.0	48	13	10	1.4	.57	.74
8	3.3	4.8	4.7	3.3	3.5	7.4	53	13	16	1.3	.50	.65
9	3.3	4.8	4.7	2.9	4.0	7.8	44	9.5	16	1.2	.50	.84
10	3.5	4.5	3.8	3.0	4.5	8.6	31	9.5	15	1.1	.37	.92
11	3.5	4.5	3.7	3.4	4.5	7.6	28	11	15	1.0	.27	.92
12	3.3	4.2	3.5	3.8	4.8	7.4	27	11	18	1.0	.27	.84
13	3.3	4.0	3.6	4.0	5.3	5.6	24	12	18	.92	.19	.84
14	3.5	4.0	3.7	4.0	5.6	6.0	25	11	18	.92	.19	.74
15	3.5	7.8	3.8	3.7	6.0	6.6	22	10	16	.84	.14	.74
16	3.5	8.2	3.8	3.6	6.6	7.4	20	10	16	.74	.27	.84
17	3.5	7.0	3.5	4.0	7.0	6.6	19	9.5	9.9	.65	.92	.84
18	3.5	6.0	3.3	4.2	7.4	6.6	16	8.6	9.5	.74	.92	.84
19	3.5	5.6	3.3	4.2	8.2	7.4	15	7.8	8.6	.74	.92	1.0
20	3.5	5.0	3.4	4.5	7.8	7.0	14	7.0	8.2	.65	1.0	1.3
21	3.8	5.3	3.6	4.8	7.4	8.2	15	6.6	6.6	.65	1.0	1.3
22	4.0	5.3	4.3	4.8	6.6	12	14	6.3	6.3	.65	1.0	1.4
23	4.0	4.6	4.2	4.8	6.0	22	13	7.4	5.3	.74	.92	1.6
24	4.0	4.2	3.6	4.5	5.6	14	14	8.2	4.5	.84	1.0	1.7
25	4.8	3.5	3.3	4.5	5.8	16	14	8.2	3.8	.92	1.1	1.7
26	5.6	2.5	3.5	4.2	6.0	13	13	11	2.9	1.0	1.1	1.8
27	4.8	2.2	3.5	4.2	6.3	12	12	13	2.5	.92	1.0	1.8
28	4.5	3.5	3.1	4.0	6.3	10	11	10	2.1	.84	1.0	1.4
29	4.5	4.0	3.2	4.0	---	9.5	10	8.6	2.0	.65	1.0	2.1
30	4.5	4.8	3.1	3.8	---	12	9.9	7.4	1.7	.57	1.2	2.0
31	4.5	---	3.0	3.5	---	10	---	7.0	---	.50	1.2	---
TOTAL	118.5	144.5	120.5	121.4	147.6	276.8	650.4	300.7	275.6	31.48	20.65	35.07
MEAN	3.82	4.82	3.89	3.92	5.26	8.93	21.7	9.70	9.19	1.02	.67	1.17
MAX	5.6	8.2	5.3	4.8	8.2	22	53	13	18	2.0	1.2	2.1
MIN	3.1	2.2	3.0	2.9	3.1	5.6	9.5	6.3	1.7	.50	.14	.65
AC-FT	235	287	239	241	293	549	1290	596	547	62	41	70

CAL YR 1976 TOTAL 18923.40 MEAN 51.7 MAX 740 MIN 2.2 AC-FT 37530
WTR YR 1977 TOTAL 2243.70 MEAN 6.15 MAX 53 MIN .14 AC-FT 4450

13270800 SOUTH FORK BURNT RIVER ABOVE BARNEY CREEK, NEAR UNITY, OR

LOCATION.--Lat 44°24'23", long 118°18'02", in NW¼SE¼ sec.28, T.13 S., R.36 E., Baker County, Hydrologic Unit 17050202, Wallowa Whitman National Forest, on right bank 300 ft (91 m) upstream from Barney Creek and 6 mi (10 km) southwest of Unity.

DRAINAGE AREA.--38.5 mi² (99.7 km²).

PERIOD OF RECORD.--March 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,347.06 ft (1,324.984 m) above mean sea level (levels by Bureau of Reclamation). Prior to July 18, 1963, nonrecording gage at site 6 ft (2 m) upstream at datum 0.16 ft (0.049 m) higher.

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--14 years, 28.0 ft³/s (0.793 m³/s), 20,290 acre-ft/yr (25.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 186 ft³/s (5.27 m³/s) Apr. 29, 1965, gage height, 1.98 ft (0.604 m); maximum gage height, 3.57 ft (1.088 m) Jan. 10, 1974 (backwater from ice); minimum discharge, 12 ft³/s (0.34 m³/s) Jan. 23, 24, 1969, Dec. 8, 1972, Dec. 26, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 29 ft³/s (0.82 m³/s) Apr. 7, gage height, 1.17 ft (0.357 m); maximum gage height, 1.60 ft (0.488 m) Jan. 6 (backwater from ice); minimum discharge, 16 ft³/s (0.45 m³/s) Nov. 27, Jan. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	24	24	22	20	20	19	24	22	19	19	19
2	23	23	24	23	21	20	19	24	21	20	19	19
3	23	23	24	23	21	20	20	23	21	19	19	19
4	22	23	24	23	21	20	21	22	21	19	19	18
5	23	23	24	21	21	20	23	22	21	19	19	19
6	23	23	24	17	21	20	24	22	21	19	19	19
7	23	23	24	17	21	20	25	23	23	19	19	19
8	23	23	24	18	21	20	25	22	24	19	19	18
9	23	23	24	17	21	20	24	22	22	19	19	18
10	23	23	23	17	21	20	23	23	21	19	19	18
11	23	23	23	19	21	19	23	23	22	19	19	18
12	23	23	22	20	21	20	23	23	22	19	19	18
13	23	23	23	21	21	19	24	23	23	19	19	18
14	23	23	23	22	21	19	23	22	24	19	19	19
15	23	24	23	22	21	20	23	22	22	19	19	19
16	23	24	23	22	21	20	23	22	22	19	19	19
17	23	23	22	22	21	20	22	22	21	19	19	19
18	23	23	22	22	21	20	22	22	21	19	19	19
19	23	23	21	22	21	19	21	22	21	19	19	19
20	23	23	21	22	21	19	22	22	21	19	19	19
21	23	23	23	21	21	19	22	22	20	19	19	19
22	23	23	24	21	21	20	23	22	20	19	19	19
23	23	22	23	20	21	20	24	23	20	19	19	19
24	23	22	23	20	21	19	25	23	19	19	20	19
25	25	23	23	19	21	19	25	22	19	19	20	19
26	24	21	23	19	21	19	25	24	19	19	20	19
27	23	18	23	19	20	20	23	23	19	19	19	19
28	23	22	22	18	20	19	23	22	19	19	19	20
29	23	25	22	19	---	19	23	22	19	19	19	19
30	23	25	22	19	---	19	23	22	19	19	20	19
31	23	---	21	19	---	19	---	22	---	19	19	---
TOTAL	715	687	711	626	585	607	685	697	629	590	592	564
MEAN	23.1	22.9	22.9	20.2	20.9	19.6	22.8	22.5	21.0	19.0	19.1	18.8
MAX	25	25	24	23	21	20	25	24	24	20	20	20
MIN	22	18	21	17	20	19	19	22	19	19	19	18
AC-FT	1420	1360	1410	1240	1160	1200	1360	1380	1250	1170	1170	1120

CAL YR 1976 TOTAL 10333 MEAN 28.2 MAX 76 MIN 18 AC-FT 20500
WTR YR 1977 TOTAL 7688 MEAN 21.1 MAX 25 MIN 17 AC-FT 15250

13272500 UNITY RESERVOIR NEAR UNITY, OR

LOCATION.--Lat 44°30'13", long 118°10'45", in SE¼SW¼ sec.21, T.12 S., R.37 E., Baker County, Hydrologic Unit 17050202, at spillway near right end of dam on Burnt River, 4.4 mi (7.1 km) north of Unity, and at mile 63.6 (102.3 km).

DRAINAGE AREA.--309 mi² (800 km²).

PERIOD OF RECORD.--March 1938 to current year.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (Bureau of Reclamation bench mark). Prior to Nov. 4, 1941, reference mark or mercury pressure gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway and outlet works, completed by Bureau of Reclamation in 1937; storage began Feb. 19, 1938. Capacity, 25,200 acre-ft (31.1 hm³) between elevations 3,776.5 ft (1,151.08 m), bottom of outlet gates, and 3,820.0 ft (1,164.34 m), top of radial gates on spillway when closed. Dead storage, 600 acre-ft (740,000 m³) below elevations 3,776.5 ft (1,151.08 m). Records given herein represent usable contents. Water used for irrigation in the Burnt River Irrigation District near Hereford and Bridgeport.

COOPERATION.--Data for computing capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 26,770 acre-ft (33.0 hm³) May 21, 1971, elevation, 3,821.62 ft (1,164.830 m); no contents Sept. 5 to Oct. 4, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 16,390 acre-ft (20.2 hm³) Apr. 19, elevation, 3,809.62 ft (1,161.172 m); minimum observed, 653 acre-ft (805,000 m³) Aug. 20, elevation, 3,780.30 ft (1,152.235 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	3,796.30	7,340	-
Oct. 31	3,795.30	6,780	-560
Nov. 30	3,798.64	8,750	+1,970
Dec. 31	3,801.36	10,480	+1,730
CAL YR 1976	-	-	-630
Jan. 31	3,804.00	12,260	+1,780
Feb. 28	3,805.98	13,670	+1,410
Mar. 31	3,808.54	15,550	+1,880
Apr. 30	3,808.80	15,760	+210
May 31	3,801.76	10,740	-5,020
June 30	3,797.22	7,880	-2,860
July 31	3,788.30	3,250	-4,630
Aug. 31	3,781.20	858	-2,392
Sept.30	3,783.08	1,340	+482
WTR YR 1977	-	-	-6,000

† Gages read between 0700 and 0900 hrs.

13273000 BURNT RIVER NEAR HEREFORD, OR

LOCATION.--Lat 44°30'14", long 118°10'35", in SE¼ sec.21, T.12 S., R.37 E., Baker County, Hydrologic Unit 17050202, on left bank 800 ft (244 m) downstream from Unity Dam, 0.4 mi (0.6 km) upstream from Van Cleve ditch, 7 mi (11 km) west of Hereford, and at mile 63.5 (102.2 km).

DRAINAGE AREA.--309 mi^2 (800 km^2).

PERIOD OF RECORD.--March to September 1915, April to September 1916, October 1928 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 903: 1939. WSP 1397: 1916, 1930, 1930(M).

GAGE.--Water-stage recorder. Datum of gage is 3,758.19 ft (1,145.496 m) above mean sea level. Oct. 1, 1943, to Oct. 31, 1966, water-stage recorder at site 450 ft (137 m) downstream at datum 1.44 ft (0.439 m) lower. See WSP 1317 or 1737 for history of changes prior to Oct. 1, 1943.

REMARKS.--Records good. Flow regulated since 1938 by Unity Reservoir (see sta 13272500). Diversions for irrigation above station.

AVERAGE DISCHARGE.--49 years (water years 1929-77), 83.4 ft^3/s (2.362 m^3/s), 60,420 acre-ft/yr (74.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,220 ft^3/s (62.9 m^3/s) Apr. 17, 1943, gage height, 8.79 ft (2.679 m), present datum, from rating curve extended above 1,300 ft^3/s (36.8 m^3/s); maximum gage height, 9.29 ft (2.832 m), present datum, Apr. 16, 1943, just before concrete control washed out; no flow at times; minimum discharge before construction of Unity Dam, 1.6 ft^3/s (0.045 m^3/s) Aug. 31, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 151 ft^3/s (4.28 m^3/s) May 2, gage height, 3.82 ft (1.164 m); minimum, 0.01 ft^3/s (<0.001 m^3/s) Sept. 21-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	11	11	3.1	3.1	4.2	2.3	118	42	78	81	.18
2	81	12	11	3.1	1.9	4.2	2.4	143	38	73	88	.18
3	76	12	11	3.0	1.9	4.0	2.4	142	36	74	82	.16
4	83	11	11	3.0	2.3	3.4	2.5	140	31	71	78	.18
5	79	11	11	3.0	1.9	2.5	2.2	138	31	65	89	.18
6	88	8.9	11	3.0	1.7	2.5	1.8	135	42	61	84	.18
7	89	7.9	11	3.1	2.0	2.5	1.9	130	52	60	72	.14
8	89	8.5	11	3.0	2.2	2.7	1.7	126	55	53	71	.16
9	89	9.2	11	3.0	2.4	2.7	1.4	125	68	48	72	.18
10	89	9.6	11	3.0	2.5	2.8	1.3	123	68	51	68	.16
11	38	9.6	11	3.0	2.5	2.7	1.1	117	58	60	65	.18
12	8.5	8.9	11	3.0	2.5	2.3	1.1	114	55	63	64	.20
13	9.9	8.2	11	3.0	2.7	2.3	.94	108	62	66	64	.22
14	11	7.9	11	3.0	2.8	2.3	.94	112	56	76	68	.22
15	11	7.9	9.9	3.0	2.8	2.2	.88	111	56	91	68	.94
16	9.9	8.2	7.7	3.0	2.8	2.2	.67	111	56	98	74	.72
17	10	9.2	7.7	3.1	3.0	2.3	.58	111	56	89	80	.13
18	11	9.2	7.7	3.1	3.0	2.3	.58	106	59	92	80	.11
19	11	9.9	7.7	3.1	3.0	2.2	15	101	61	93	73	.09
20	12	9.6	7.7	3.1	3.0	2.2	21	101	62	95	33	.08
21	12	9.6	7.9	3.3	3.1	2.2	22	101	65	101	.23	.02
22	13	8.9	7.9	3.1	3.3	2.3	34	97	69	118	.22	.02
23	12	8.5	7.9	3.3	3.3	1.9	39	96	75	108	.22	.01
24	11	8.2	7.9	3.3	3.3	2.0	42	94	75	88	.23	.07
25	11	9.2	7.9	3.3	3.8	2.0	48	90	74	97	.23	.13
26	11	10	7.9	3.3	4.2	2.0	47	78	75	104	.23	.18
27	11	9.9	8.2	3.3	4.0	2.2	60	71	85	94	.23	.22
28	9.6	10	6.3	3.3	4.2	2.2	67	66	83	79	.23	.23
29	13	11	3.3	3.3	---	2.2	85	57	80	83	.22	.23
30	18	11	3.1	3.3	---	2.2	104	56	80	86	.23	.23
31	15	---	3.3	3.3	---	2.3	---	50	---	83	.35	---
TOTAL	1121.9	286.0	274.0	96.8	79.2	78.0	610.69	3268	1805	2498	1456.62	5.93
MEAN	36.2	9.53	8.84	3.12	2.83	2.52	20.4	105	60.2	80.6	47.0	.20
MAX	90	12	11	3.3	4.2	4.2	104	143	85	118	89	.94
MIN	8.5	7.9	3.1	3.0	1.7	1.9	.58	50	31	48	.22	.01
AC-FT	2230	567	543	192	157	155	1210	6480	3580	4950	2890	12

CAL YR 1976 TOTAL 34084.90 MEAN 93.1 MAX 502 MIN 3.1 AC-FT 67610
WTR YR 1977 TOTAL 11580.14 MEAN 31.7 MAX 143 MIN .01 AC-FT 22970

13274200 BURNT RIVER NEAR BRIDGEPORT, OR

LOCATION.--Lat 44°32'27", long 117°41'10", in NW¼NW¼ sec.10, T.12 S., R.41 E., Baker County, Hydrologic Unit 17050202, on left bank 0.5 mi (0.8 km) downstream from Dark Canyon, 4.6 mi (7.4 km) upstream from Deer Creek, 5.0 mi (8.0 km) northeast of Bridgeport, and at mile 37.1 (59.7 km).

DRAINAGE AREA.--650 mi^2 (1,680 km^2), approximately.

PERIOD OF RECORD.--October 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,223.22 ft (982.437 m) above mean sea level (levels by Bureau of Reclamation).

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since 1938 by Unity Reservoir (see station 13272500). Many diversions for irrigation above station.

AVERAGE DISCHARGE.--21 years, 105 ft^3/s (2.974 m^3/s), 76,070 acre-ft/yr (93.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,600 ft^3/s (45.3 m^3/s) Apr. 9, 1971, gage height, 6.40 ft (1.951 m); minimum, 5.2 ft^3/s (0.15 m^3/s) Dec. 5, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 117 ft^3/s (3.31 m^3/s) Oct. 7; maximum gage height, 1.99 ft (0.607 m) Dec. 20, ice jam; minimum discharge, 6.6 ft^3/s (0.19 m^3/s) Mar. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	35	25	18	15	20	18	27	41	26	34	17
2	99	36	24	19	16	19	18	25	37	28	37	19
3	98	37	24	19	15	19	19	31	34	24	35	15
4	98	36	24	19	14	19	18	39	28	28	34	14
5	99	34	23	14	14	17	18	39	28	32	28	14
6	109	34	21	12	14	19	18	37	27	42	30	13
7	114	34	18	11	15	19	19	42	24	47	34	13
8	112	32	15	10	17	19	18	32	27	41	37	11
9	112	33	13	9.5	16	19	18	31	24	36	34	11
10	113	32	12	11	15	18	17	43	23	35	28	11
11	109	32	12	13	16	17	18	46	26	36	28	9.8
12	97	32	12	17	17	17	18	41	28	35	27	9.0
13	64	31	12	17	17	17	18	34	26	30	26	9.0
14	56	31	13	15	15	17	19	28	32	27	26	8.7
15	52	32	14	14	16	16	18	28	32	25	24	9.0
16	47	34	16	14	18	16	17	31	34	19	18	11
17	44	34	16	15	18	16	17	34	28	19	18	12
18	42	34	15	14	17	16	16	38	26	24	20	12
19	40	34	14	14	17	16	14	37	26	24	21	12
20	39	33	13	15	18	16	13	31	28	18	23	11
21	39	32	14	16	18	16	21	33	24	23	24	12
22	39	32	15	13	19	16	29	35	20	20	23	11
23	38	32	14	14	18	17	25	39	20	27	22	11
24	38	31	13	16	18	17	32	42	23	31	17	11
25	38	31	14	16	17	17	29	43	26	27	20	10
26	37	30	16	16	18	18	29	56	23	26	21	11
27	36	18	17	15	21	18	27	59	23	31	23	11
28	37	20	16	14	18	17	24	52	21	33	21	14
29	36	22	15	14	---	18	25	48	19	32	20	14
30	35	24	14	14	---	17	24	45	22	27	20	12
31	35	---	16	13	---	17	---	43	---	28	18	---
TOTAL	2044	942	500	451.5	467	540	614	1189	800	901	791	358.5
MEAN	65.9	31.4	16.1	14.6	16.7	17.4	20.5	38.4	26.7	29.1	25.5	12.0
MAX	114	37	25	19	21	20	32	59	41	47	37	19
MIN	35	18	12	9.5	14	16	13	25	19	18	17	8.7
AC-FT	4050	1870	992	896	926	1070	1220	2360	1590	1790	1570	711

CAL YR 1976 TOTAL 39767.0 MEAN 109 MAX 666 MIN 12 AC-FT 78880
WTR YR 1977 TOTAL 9598.0 MEAN 26.3 MAX 114 MIN 8.7 AC-FT 19040

13275000 BURNT RIVER AT HUNTINGTON, OR

LOCATION.--Lat 44°21'30", long 117°16'20", in NE¼ sec.13, T.14 S., R.44 E., Baker County, Hydrologic Unit 17050202, on right bank 0.5 mi (0.8 km) northwest of Huntington and at mile 2.9 (4.7 km).

DRAINAGE AREA.--1,093 mi^2 (2,831 km^2).

PERIOD OF RECORD.--September 1928 to September 1932, October 1956 to September 1959, June 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,104.75 ft (641.528 m) above mean sea level. Sept. 13, 1928, to Sept. 30, 1932, nonrecording gage at site 200 ft (61 m) upstream at different datum. Oct. 1, 1956, to Sept. 30, 1959, water-stage recorder and Oct. 1, 1959, to Aug. 20, 1962, crest-stage gage.

REMARKS.--Records good except those for December and January, which are fair. Flow regulated since 1938 by Unity Reservoir (see station 13272500). Diversions for irrigation above station.

AVERAGE DISCHARGE.--22 years, 130 ft^3/s (3.682 m^3/s), 94,180 acre-ft/yr (116 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,220 ft^3/s (62.9 m^3/s) Dec. 22, 1964, gage height, 5.94 ft (1.811 m); maximum gage height, 6.80 ft (2.073 m) Feb. 3, 1963 (ice jam); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 235 ft^3/s (6.66 m^3/s) June 7; maximum gage height, 2.31 ft (0.704 m) Dec. 21 (ice jam); minimum discharge, 2.5 ft^3/s (0.071 m^3/s) July 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	68	64	52	42	42	35	14	27	13	12	14
2	99	68	64	50	39	40	32	15	25	12	5.6	13
3	106	68	58	45	39	42	30	17	22	11	10	11
4	106	69	54	41	40	41	31	19	19	11	9.9	12
5	102	68	55	34	41	40	31	23	17	10	8.8	13
6	107	67	51	28	41	40	30	25	15	9.0	15	13
7	114	66	55	28	42	41	28	30	37	13	23	9.2
8	117	64	60	27	42	41	28	26	49	12	19	4.9
9	119	63	61	27	44	42	25	23	38	12	17	6.3
10	119	64	57	28	40	40	22	25	28	12	15	8.2
11	117	63	50	31	41	38	22	26	23	11	13	9.9
12	114	63	46	40	40	38	21	25	28	11	11	9.5
13	96	62	48	43	41	35	20	25	28	7.8	7.5	9.2
14	77	62	45	39	40	33	20	25	28	7.5	8.5	4.0
15	66	62	48	36	38	32	19	28	30	4.9	9.5	5.3
16	64	63	46	40	38	32	19	27	29	4.0	12	7.5
17	64	64	44	43	38	33	18	25	30	4.6	13	11
18	63	63	45	43	40	31	20	25	27	5.6	15	11
19	64	62	43	40	39	33	21	26	21	12	13	9.9
20	66	62	41	45	39	33	19	28	22	10	14	11
21	67	62	45	47	43	32	20	34	22	9.5	14	18
22	73	61	50	47	45	31	18	31	31	9.2	15	19
23	71	61	52	39	42	30	18	28	25	9.9	15	17
24	71	61	54	42	41	27	14	39	22	8.2	15	17
25	72	61	54	47	39	27	12	35	21	4.6	15	17
26	71	57	54	45	40	27	11	38	20	4.6	16	17
27	68	43	52	43	39	29	14	59	18	6.3	17	17
28	68	46	45	42	41	30	15	57	16	7.8	18	17
29	71	52	45	40	---	31	15	52	15	8.2	17	21
30	68	56	47	38	---	31	15	47	14	7.1	16	20
31	69	---	50	36	---	31	---	33	---	11	15	---
TOTAL	2642	1851	1583	1226	1134	1073	643	930	747	279.8	424.8	372.9
MEAN	85.2	61.7	51.1	39.5	40.5	34.6	21.4	30.0	24.9	9.03	13.7	12.4
MAX	119	69	64	52	45	42	35	59	49	13	23	21
MIN	63	43	41	27	38	27	11	14	14	4.0	5.6	4.0
AC-FT	5240	3670	3140	2430	2250	2130	1280	1840	1480	555	843	740

CAL YR 1976 TOTAL 50213.0 MEAN 137 MAX 778 MIN 41 AC-FT 99600
WTR YR 1977 TOTAL 12906.5 MEAN 35.4 MAX 119 MIN 4.0 AC-FT 25600

13275300 POWDER RIVER NEAR SUMPTER, OR

LOCATION.--Lat 44°40'20", long 117°59'40", in NE¼NE¼ sec.25, T.10 S., R.38 E., Baker County, Hydrologic Unit 17050203, Wallowa Whitman National Forest, on left bank 1,200 ft (366 m) downstream from Mason Dam, 1.4 mi (2.3 km) upstream from California Gulch, 10.9 mi (17.4 km) southwest of Baker, and at mile 123.2 (198.2 km).

DRAINAGE AREA.--168 mi^2 (435 km^2), approximately. Prior to Oct. 1, 1970, 170 mi^2 (440 km^2) at cableway, 0.5 mi (0.8 km) downstream.

PERIOD OF RECORD.--April 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,898.47 ft (1,188.254 m) above mean sea level (Bureau of Reclamation bench mark). Prior to July 29, 1965, nonrecording gage at datum 1.03 ft (0.314 m) higher.

REMARKS.--Records good. Flow completely regulated since Oct. 31, 1967, by Phillips Lake, active capacity, 90,540 acre-ft (112 hm^3). Many small diversions for irrigation above station.

AVERAGE DISCHARGE.--12 years, 106 ft^3/s (3.002 m^3/s), 76,800 acre-ft/yr (94.7 hm^3/yr), not adjusted for storage in Phillips Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 971 ft^3/s (27.5 m^3/s) Apr. 30, 1965, gage height, 4.43 ft (1.350 m); no flow Nov. 12, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 1,600 ft^3/s (45.3 m^3/s), approximately, Mar. 20, 1910, based on comparison with records for station downstream, near Baker.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 284 ft^3/s (8.04 m^3/s) May 10, 11; maximum gage height, 3.12 ft (0.951 m) June 30, July 1; minimum discharge, 6.7 ft^3/s (0.19 m^3/s) sometime during period Oct. 1-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	11	11	11	11	11	11	158	97	277	178	121
2	8.9	11	11	11	11	11	11	175	100	267	175	102
3	8.8	11	11	11	11	11	11	196	117	239	170	102
4	8.8	11	11	11	11	11	11	202	114	226	155	102
5	8.7	11	11	11	11	11	11	211	114	190	155	104
6	8.7	11	11	11	11	11	11	217	121	141	155	102
7	8.6	11	11	11	11	11	11	217	136	136	155	102
8	8.6	11	11	11	11	11	11	220	136	163	132	102
9	8.6	11	11	11	11	11	11	223	136	170	108	102
10	8.6	11	11	11	11	11	11	246	134	170	80	100
11	9.4	11	11	11	11	11	13	274	125	168	89	100
12	10	11	11	11	11	11	24	246	104	163	97	100
13	10	11	11	11	11	11	29	235	102	165	97	100
14	10	11	11	11	11	11	29	239	104	170	97	82
15	10	11	11	11	11	11	29	239	114	168	98	73
16	10	11	11	11	11	11	32	235	134	163	112	73
17	10	11	11	11	11	11	45	232	153	163	125	73
18	11	11	11	11	11	11	58	229	158	168	136	73
19	11	11	11	11	11	11	67	217	158	196	148	72
20	11	11	11	11	11	11	60	217	160	193	121	127
21	11	11	11	11	11	11	54	217	170	181	129	129
22	11	11	11	11	11	11	70	220	173	158	160	29
23	11	11	11	11	11	11	70	220	170	158	193	21
24	11	11	11	11	11	11	70	214	160	158	208	21
25	11	11	11	11	11	11	72	193	175	158	175	20
26	11	11	11	11	11	11	85	160	178	158	155	20
27	10	11	11	11	11	11	121	136	187	153	143	13
28	10	11	11	11	11	11	123	139	235	143	143	11
29	10	11	11	11	---	11	139	139	235	148	139	11
30	11	11	11	11	---	11	158	114	242	170	123	11
31	11	---	11	11	---	11	---	95	---	173	123	---
TOTAL	307.6	330	341	341	308	341	1458	6275	4442	5454	4274	2198
MEAN	9.92	11.0	11.0	11.0	11.0	11.0	48.6	202	148	176	138	73.3
MAX	11	11	11	11	11	11	158	274	242	277	208	129
MIN	8.6	11	11	11	11	11	11	95	97	136	80	11
AC-FT	610	655	676	676	611	676	2890	12450	8810	10820	8480	4360

CAL YR 1976 TOTAL 42527.20 MEAN 116 MAX 510 MIN .10 AC-FT 84350
WTR YR 1977 TOTAL 26069.60 MEAN 71.4 MAX 277 MIN 8.6 AC-FT 51710

13286700 POWDER RIVER NEAR RICHLAND, OR

LOCATION.--Lat 44°46'40", long 117°17'30", in SE¼ sec.14, T.9 S., R.44 E., Baker County, Hydrologic Unit 17050203, on left bank 0.4 mi (0.6 km) upstream from Upper Timber Canyon, 6.0 mi (9.7 km) west of Richland, and at mile 20.3 (32.7 km).

DRAINAGE AREA.--1,310 mi² (3,390 km²), approximately.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,277.42 ft (694.158 m) above mean sea level.

REMARKS.--Records good except those for winter periods and no gage-height record, which are fair. Regulation by several reservoirs, the largest being Phillips Lake since Oct. 31, 1967, active capacity, 90,540 acre-ft (112 hm³), and Thief Valley Reservoir, capacity, 17,400 acre-ft (21.5 hm³). Diversions for irrigation above and below station.

AVERAGE DISCHARGE.--20 years, 247 ft³/s (6.995 m³/s), 179,000 acre-ft/yr (221 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,470 ft³/s (98.3 m³/s) Jan. 31, 1965, gage height, 6.68 ft (2.036 m); maximum gage height, 9.29 ft (2.832 m) Jan. 15, 1974 (ice jam); minimum discharge, 0.80 ft³/s (0.023 m³/s) Aug. 11, 12, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 156 ft³/s (4.42 m³/s) Mar. 10, gage height, 1.73 ft (0.527 m); maximum gage height, 3.34 ft (1.018 m) Feb. 21 (ice jam); minimum discharge, 1.7 ft³/s (0.048 m³/s) July 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	86	92	82	60	137	113	15	29	12	9.5	36
2	115	88	94	78	66	139	128	16	24	10	8.6	24
3	123	88	96	88	64	142	121	17	22	13	10	21
4	119	88	100	70	62	146	115	16	21	16	13	19
5	119	88	86	60	60	139	105	17	19	17	14	19
6	119	88	80	56	70	139	92	16	19	21	16	16
7	126	88	100	60	66	142	65	15	21	21	16	15
8	126	88	110	56	74	144	44	16	25	19	17	14
9	130	88	100	58	86	146	30	17	22	13	16	12
10	126	88	90	66	80	154	31	18	23	10	33	11
11	123	88	80	76	82	146	25	17	24	11	15	9.5
12	123	88	68	84	90	142	21	18	25	9.1	11	11
13	121	88	76	90	94	135	17	18	24	5.6	12	11
14	121	90	70	80	90	130	13	19	29	5.6	13	8.2
15	121	92	68	74	86	128	12	21	32	4.4	17	8.6
16	121	94	74	90	96	126	12	20	33	5.6	27	15
17	121	94	66	86	90	123	12	21	31	3.3	22	11
18	119	92	64	78	96	123	14	23	29	3.3	19	11
19	119	92	62	68	90	119	13	25	31	3.6	16	10
20	121	94	60	72	94	130	14	24	35	3.6	24	12
21	111	94	70	68	100	128	14	23	36	2.7	23	13
22	65	94	84	66	110	130	13	25	32	2.0	25	13
23	45	94	82	76	94	132	13	26	29	2.2	25	12
24	39	94	86	60	100	132	14	27	25	2.5	23	11
25	37	94	84	86	88	132	13	25	20	3.8	24	12
26	37	94	92	84	94	121	12	26	15	11	26	14
27	70	62	84	80	110	126	13	34	14	16	25	25
28	88	84	80	72	126	130	14	38	15	11	29	24
29	88	92	66	70	---	119	15	38	13	7.0	31	25
30	88	94	74	68	---	115	14	33	13	11	30	26
31	84	---	62	62	---	107	---	34	---	9.1	32	---
TOTAL	3162	2686	2500	2264	2418	4102	1132	698	730	285.4	622.1	469.3
MEAN	102	89.5	80.6	73.0	86.4	132	37.7	22.5	24.3	9.21	20.1	15.6
MAX	130	94	110	90	126	154	128	38	36	21	33	36
MIN	37	62	60	56	60	107	12	15	13	2.0	8.6	8.2
AC-FT	6270	5330	4960	4490	4800	8140	2250	1380	1450	566	1230	931

CAL YR 1976 TOTAL 101046.0 MEAN 276 MAX 1300 MIN 35 AC-FT 200400
WTR YR 1977 TOTAL 21068.8 MEAN 57.7 MAX 154 MIN 2.0 AC-FT 41790

NOTE.--No gage-height record Apr. 25 to May 25.

13288200 EAGLE CREEK ABOVE SKULL CREEK, NEAR NEW BRIDGE, OR

LOCATION.--Lat 44°52'50", long 117°15'10", in SE¼ sec.7, T.8 S., R.45 E., Baker County, Hydrologic Unit 17050203, Wallowa-Whitman National Forest, on left bank 0.5 mi (0.8 km) upstream from Skull Creek, 6.5 mi (10.5 km) northwest of New Bridge, and at mile 10.5 (16.9 km).

DRAINAGE AREA.--156 mi² (404 km²).

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,800 ft (853 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are fair. No regulation. Some diversions above station for irrigation and one small interbasin diversion for irrigation supply. All diversions are small compared to flow at station during irrigation season.

AVERAGE DISCHARGE.--20 years, 323 ft³/s (9.147 m³/s), 234,000 acre-ft/yr (289 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,310 ft³/s (150 m³/s) July 12, 1975, gage height, 5.06 ft (1.542 m), from rating curve extended above 2,500 ft³/s (70.8 m³/s) on basis of slope-area measurement of peak flow; maximum gage height, 6.88 ft (2.097 m) Jan. 25, 1962 (ice jam); minimum daily discharge, 30 ft³/s (0.85 m³/s) Nov. 28, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,060 ft³/s (30.0 m³/s) June 7, no peak above base of 1,700 ft³/s (48.1 m³/s); maximum gage height, 3.59 ft (1.094 m) Jan. 31, ice jam; minimum daily discharge, 30 ft³/s (0.85 m³/s) Nov. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	87	80	50	70	67	68	414	404	113	60	78
2	99	93	86	54	64	63	65	409	414	113	59	70
3	99	93	80	58	70	65	67	335	348	109	59	67
4	95	87	84	60	80	63	72	278	424	107	57	63
5	93	85	72	48	88	63	84	248	535	107	57	63
6	89	85	66	48	94	65	100	230	577	100	59	62
7	85	84	72	50	100	65	156	213	642	97	60	60
8	84	82	64	45	88	65	201	197	558	93	59	59
9	82	82	72	47	94	68	170	197	430	89	57	59
10	80	82	68	48	100	63	156	270	348	87	60	60
11	78	80	70	52	90	62	167	237	318	84	57	60
12	78	80	72	60	85	65	191	213	297	84	55	59
13	77	80	84	68	67	62	210	223	266	85	57	57
14	77	78	82	78	63	62	185	255	252	84	59	57
15	75	82	87	82	63	63	194	227	227	82	59	59
16	75	91	87	78	65	63	223	210	217	78	57	65
17	73	91	84	86	65	63	227	201	204	78	55	65
18	73	85	68	78	65	65	217	194	188	80	55	63
19	80	84	50	68	65	65	201	188	188	78	55	70
20	87	80	38	60	65	63	197	182	176	77	55	109
21	87	80	74	58	68	63	194	185	161	75	55	85
22	87	80	84	60	67	65	201	201	150	73	55	78
23	85	78	66	56	63	70	297	339	142	73	55	75
24	85	78	70	56	65	67	399	326	132	77	62	78
25	91	78	80	58	63	65	435	282	119	78	78	80
26	91	72	94	56	65	67	430	301	115	73	84	82
27	89	57	86	52	65	68	404	297	109	68	75	77
28	87	30	66	50	67	65	409	270	117	68	70	139
29	87	58	60	50	---	67	419	230	117	67	73	270
30	87	74	50	54	---	65	414	223	113	65	97	164
31	85	---	45	58	---	67	---	252	---	62	93	---
TOTAL	2633	2376	2241	1826	2064	2009	6753	7827	8288	2604	1948	2433
MEAN	84.9	79.2	72.3	58.9	73.7	64.8	225	252	276	84.0	62.8	81.1
MAX	99	93	94	86	100	70	435	414	642	113	97	270
MIN	73	30	38	45	63	62	65	182	109	62	55	57
AC-FT	5220	4710	4450	3620	4090	3980	13390	15520	16440	5170	3860	4830

CAL YR 1976 TOTAL 101310 MEAN 277 MAX 1320 MIN 30 AC-FT 200900
WTR YR 1977 TOTAL 43002 MEAN 118 MAX 642 MIN 30 AC-FT 85290

13292000 IMNAHA RIVER AT IMNAHA, OR

LOCATION.--Lat 45°33'45", long 116°50'00", in SW¼ sec.16, T.1 N., R.48 E., Wallowa County, Hydrologic Unit 17060102, on left bank at Imnaha, 0.3 mi (0.5 km) downstream from Big Sheep Creek, and at mile 19.3 (31.1 km).

DRAINAGE AREA.--622 mi² (1,611 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1928 to current year.

REVISED RECORDS.--WSP 833: 1938. WSP 1397: 1929, 1932(M), 1949. WSP 1737: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,941.14 ft (591.659 m) above mean sea level. Prior to Aug. 6, 1934, nonrecording gage at site 0.25 mi (0.40 km) upstream at different datum. Aug. 6-31, 1934, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records good. No regulation. Diversions for irrigation above station. Water is diverted from Big Sheep Creek and tributaries above station for irrigation in Wallowa River basin.

AVERAGE DISCHARGE.--49 years, 510 ft³/s (14.44 m³/s), 369,500 acre-ft/yr (456 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s (286 m³/s) Jan. 17, 1974, gage height, 7.86 ft (2.396 m), from rating curve extended above 3,500 ft³/s (99.1 m³/s); minimum observed, 16 ft³/s (0.45 m³/s) Nov. 22, 1931, result of freezeup; minimum daily, 25 ft³/s (0.71 m³/s) Nov. 22, 23, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,020 ft³/s (28.9 m³/s) June 5, gage height, 3.29 ft (1.003 m), no peak above base of 1,600 ft³/s (45.3 m³/s); minimum, 39 ft³/s (1.10 m³/s) Nov. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	136	102	74	80	110	136	461	680	165	87	108
2	151	141	110	73	90	106	134	437	812	168	87	96
3	163	139	106	94	100	106	134	392	645	158	89	93
4	151	136	125	106	102	106	143	344	657	160	87	89
5	148	132	118	102	104	100	173	307	799	168	84	87
6	146	132	98	87	108	106	222	293	786	155	91	85
7	141	129	134	72	104	110	286	279	767	146	89	84
8	139	127	134	82	110	118	414	272	748	134	87	82
9	136	127	129	94	110	123	461	266	622	134	84	82
10	134	127	112	90	112	116	392	340	505	132	82	82
11	132	127	114	110	106	102	368	356	442	127	80	80
12	132	127	106	130	106	112	356	322	428	123	77	79
13	132	123	114	140	106	112	397	311	405	123	77	77
14	132	121	104	143	102	102	344	337	397	118	76	77
15	132	127	104	139	104	98	318	318	368	112	74	79
16	129	127	118	139	106	108	340	333	340	108	74	98
17	129	129	110	139	106	121	333	314	314	108	73	121
18	127	129	94	134	104	112	318	356	300	112	73	100
19	127	127	67	125	104	112	300	388	293	114	71	93
20	127	125	50	114	104	106	286	456	283	108	71	143
21	127	123	96	112	116	108	296	510	266	104	70	151
22	127	125	112	110	114	108	311	541	249	98	73	146
23	127	123	123	108	108	121	384	628	237	104	73	125
24	125	123	114	74	104	125	495	760	222	108	82	118
25	132	123	110	76	100	121	562	680	207	123	106	121
26	141	116	127	77	104	121	556	639	202	112	106	118
27	134	71	125	80	104	127	480	657	191	106	106	114
28	132	45	96	70	106	132	456	657	183	98	94	121
29	129	80	87	68	---	125	475	645	175	94	94	269
30	132	100	71	74	---	121	470	611	168	93	106	222
31	132	---	65	78	---	125	---	578	---	91	127	---
TOTAL	4187	3617	3275	3114	2924	3522	10340	13788	12691	3804	2650	3340
MEAN	135	121	106	100	104	114	345	445	423	123	85.5	111
MAX	163	141	134	143	116	132	562	760	812	168	127	269
MIN	125	45	50	68	80	98	134	266	168	91	70	77
AC-FT	8300	7170	6500	6180	5800	6990	20510	27350	25170	7550	5260	6620

CAL YR 1976 TOTAL 165637 MEAN 453 MAX 2430 MIN 45 AC-FT 328500
WTR YR 1977 TOTAL 67252 MEAN 184 MAX 812 MIN 45 AC-FT 133400

13292000 IMNAHA RIVER AT IMNAHA, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1965 to September 1968, May 1976 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 27.0°C July 23, 1977; minimum, 0.0°C on many days during winter periods each year.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.0°C July 23; minimum, 0.0°C on many days during winter periods.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.0	11.5	9.5	8.0	0.5	0.0	0.5	0.0	0.5	0.0	5.5	3.0
2	15.0	12.5	9.5	8.0	0.5	0.0	0.0	0.0	1.5	0.0	5.5	3.0
3	13.0	10.5	10.5	9.0	1.0	0.0	0.0	0.0	1.0	0.0	5.0	2.5
4	12.5	8.5	9.0	7.0	1.0	0.5	0.0	0.0	1.0	0.0	8.0	3.0
5	11.0	8.0	8.5	5.5	1.0	0.0	0.0	0.0	1.0	0.0	7.5	2.0
6	13.5	9.0	9.0	7.0	1.0	0.0	0.0	0.0	2.0	0.5	8.0	4.0
7	12.5	8.0	8.0	6.0	2.0	1.0	0.0	0.0	1.5	0.0	6.5	5.5
8	13.5	8.0	9.0	6.5	4.0	1.5	0.0	0.0	2.0	0.5	7.5	4.5
9	14.0	9.0	9.0	7.0	3.0	2.0	0.0	0.0	3.5	1.5	7.5	5.0
10	14.5	10.0	8.0	5.5	2.0	0.0	0.0	0.0	5.5	1.5	5.0	2.5
11	15.0	11.5	7.5	6.0	3.0	1.5	0.0	0.0	5.0	1.5	5.5	0.0
12	13.0	9.0	6.5	3.5	1.0	0.0	0.0	0.0	5.5	3.0	7.0	2.5
13	13.0	7.5	3.5	1.5	2.0	0.5	0.0	0.0	6.5	3.0	5.0	2.0
14	12.0	8.0	3.5	0.5	1.0	0.0	1.0	0.0	5.0	1.0	4.5	1.0
15	11.0	6.5	6.0	2.0	0.5	0.0	1.5	0.5	5.0	0.5	6.0	1.0
16	10.0	6.0	9.5	6.0	3.5	0.5	1.5	1.0	7.0	3.0	5.5	1.0
17	9.0	5.5	10.0	6.5	3.0	1.5	1.5	1.0	6.5	2.5	5.0	2.5
18	7.5	3.5	9.5	7.5	1.0	0.0	2.0	1.0	7.5	3.5	5.5	2.0
19	6.5	2.5	7.5	4.5	0.0	0.0	2.0	1.0	6.5	2.0	6.5	3.0
20	7.0	3.0	4.5	2.5	0.0	0.0	1.5	0.5	7.5	2.5	6.0	1.5
21	7.0	3.0	4.0	2.0	0.0	0.0	2.0	0.5	5.5	3.5	7.5	3.5
22	8.0	5.0	6.0	4.0	0.0	0.0	1.5	0.5	5.5	2.5	11.0	3.5
23	8.0	4.5	4.0	2.0	1.0	0.0	2.0	0.5	6.0	2.5	9.5	5.5
24	8.0	5.0	6.0	2.0	1.0	0.0	1.5	0.0	5.0	1.5	8.0	3.5
25	7.5	7.0	5.5	3.0	2.5	0.5	1.5	0.0	4.0	2.0	9.5	3.0
26	9.5	7.0	3.0	0.5	4.0	2.0	0.5	0.0	4.0	1.5	6.5	4.0
27	7.5	4.5	0.0	0.0	3.0	0.5	0.0	0.0	5.5	2.5	7.5	2.5
28	8.5	4.5	0.0	0.0	0.5	0.0	0.0	0.0	7.0	4.5	5.5	2.0
29	8.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	---	---	5.5	2.0
30	8.0	5.5	0.5	0.0	0.0	0.0	0.0	0.0	---	---	9.5	2.5
31	8.5	6.0	---	---	0.0	0.0	0.0	0.0	---	---	6.0	4.0
MONTH	16.0	2.5	10.5	0.0	4.0	0.0	2.0	0.0	7.5	0.0	11.0	0.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.5	4.0	14.0	10.5	16.0	12.5	20.5	16.5	26.0	16.5	---	---
2	8.5	3.0	14.5	11.0	14.0	9.5	23.0	15.5	23.0	17.5	---	---
3	8.5	5.5	11.0	9.5	15.0	11.0	21.5	14.5	24.5	18.0	---	---
4	14.0	4.5	10.5	6.5	18.0	12.0	17.0	13.5	26.0	17.0	---	---
5	15.0	6.5	10.0	5.0	18.5	13.0	17.0	10.5	24.5	17.5	---	---
6	14.5	7.0	10.0	6.5	19.0	14.5	20.5	12.5	24.0	17.0	---	---
7	14.0	7.5	15.0	8.0	18.0	15.5	22.0	12.5	24.5	16.0	---	---
8	11.0	7.5	12.0	9.0	17.0	14.0	22.0	14.0	24.5	17.0	20.5	---
9	8.5	6.0	13.5	8.5	15.5	11.0	22.5	16.0	25.0	16.5	19.0	11.5
10	10.5	4.5	14.5	10.5	16.5	13.0	23.0	14.5	25.5	17.0	19.0	11.5
11	9.0	5.5	13.0	9.0	17.5	13.5	23.5	15.0	26.0	17.0	19.5	12.5
12	12.0	5.5	13.5	9.5	16.5	13.5	23.5	17.0	26.0	16.5	20.0	12.5
13	9.0	6.5	17.0	11.0	17.0	14.0	23.5	14.0	26.0	16.5	19.5	11.5
14	10.5	5.0	14.0	10.0	17.0	13.5	24.0	14.5	23.5	17.5	18.5	13.0
15	12.0	5.0	12.0	7.5	19.0	12.5	25.5	16.0	26.0	17.5	17.5	14.5
16	9.5	5.5	10.0	7.5	19.5	13.0	26.0	17.0	26.0	17.5	14.5	12.5
17	10.5	4.0	8.0	7.0	21.0	13.5	21.5	18.0	24.5	17.0	15.5	11.0
18	10.0	4.0	10.0	7.0	22.0	15.0	19.5	17.5	26.0	17.0	17.0	12.5
19	10.5	5.0	12.0	8.5	21.5	16.5	24.5	16.0	24.5	17.0	15.0	13.0
20	11.5	5.0	13.5	7.5	20.5	15.5	26.0	17.0	26.0	18.0	14.5	12.5
21	10.5	7.0	12.5	9.5	22.0	15.0	24.0	18.0	22.0	18.0	13.0	10.5
22	13.5	7.0	13.5	9.0	22.5	15.5	24.0	18.0	24.0	17.5	13.0	9.5
23	15.0	8.0	13.0	11.0	23.5	15.5	27.0	18.0	22.0	15.0	11.0	8.0
24	14.5	8.5	10.5	9.0	23.5	16.0	21.5	19.0	18.5	16.5	12.5	9.5
25	13.0	9.0	12.0	7.0	24.5	16.5	25.0	17.0	19.5	15.0	12.5	9.5
26	13.5	9.0	10.5	8.5	23.5	16.0	25.0	18.5	16.5	15.0	14.5	9.0
27	13.5	7.5	10.5	6.5	23.0	16.5	26.5	17.5	17.5	13.5	14.0	10.0
28	14.0	8.5	10.5	7.0	23.5	15.0	26.0	18.5	---	13.0	13.5	11.5
29	13.0	9.5	12.5	6.5	23.0	16.5	24.0	16.0	---	---	13.5	10.5
30	14.5	9.5	12.5	7.5	23.5	14.5	24.5	15.0	---	---	10.5	9.0
31	---	---	16.5	10.0	---	---	25.5	16.0	---	---	---	---
MONTH	15.0	3.0	17.0	5.0	24.5	9.5	27.0	10.5	26.0	13.0	20.5	8.0

13318050 MEADOW CREEK BELOW SMITH CREEK, NEAR STARKEY, OR

LOCATION.--Lat 45°17'29", long 118°36'12", in SE¼NW¼ sec.19, T.3 S., R.34 E., Union County, Hydrologic Unit 17060104, in Starkey Experimental Forest, on left bank 10 ft (3 m) downstream from bridge, 25 ft (8 m) downstream from Smith Creek, 8.5 mi (13.7 km) northwest of starkey, and 24 mi (39 km) west of LaGrande.

DRAINAGE AREA.--33.2 mi^2 (86.0 km^2).

PERIOD OF RECORD.--July to September 1977.

GAGE.--Water-stage recorder. Altitude of gage is 4,060 ft (1,237 m), from topographic map.

REMARKS.--Records good.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period July to September, 7.2 ft^3/s (0.20 m^3/s) Sept. 28, gage height, 2.04 ft (0.622 m), no peak above base of 170 ft^3/s (4.81 m^3/s); minimum, 0.42 ft^3/s (0.012 m^3/s) Aug. 18, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										2.4	.82	2.7
2										2.4	.82	2.4
3										2.2	.82	2.2
4										2.9	.74	2.0
5										2.9	.66	1.9
6										2.5	.66	1.6
7										2.4	.66	1.5
8										2.0	.66	1.3
9										2.0	.66	1.3
10										1.9	.60	1.3
11										1.7	.60	1.3
12										1.7	.53	1.2
13										1.7	.53	1.2
14										1.6	.53	1.2
15										1.5	.60	1.2
16										1.3	.60	1.2
17										1.3	.53	1.2
18										1.6	.47	1.3
19										1.7	.47	1.3
20										1.5	.53	1.9
21										1.2	.53	2.5
22										1.2	.53	2.7
23										1.1	.47	2.4
24										1.1	1.3	4.0
25										1.2	1.9	3.3
26										1.5	3.8	2.9
27										1.1	2.5	2.5
28										1.0	2.0	4.2
29										.91	2.7	5.9
30										.91	5.0	5.0
31										.82	4.0	---
TOTAL										51.24	37.22	66.6
MEAN										1.65	1.20	2.22
MAX										2.9	5.0	5.9
MIN										.82	.47	1.2
CFSM										.05	.04	.07
IN.										.06	.04	.07
AC-FT										102	74	132

13318060 MEADOW CREEK ABOVE BEAR CREEK, NEAR STARKEY, OR

LOCATION.--Lat 45°16'04", long 118°31'25", in NE¼SW¼ sec.26, T.3 S., R.34 E., Union County, Hydrologic Unit 17060104, in Starkey Experimental Forest, on left bank 0.2 mi (0.3 km) upstream from bridge, 1.5 mi (2.4 km) upstream from Bear Creek, 4.5 mi (7.2 km) northwest of Starkey, and 21 mi (34 km) west of LaGrande.

DRAINAGE AREA.--48.2 mi^2 (124.8 km^2).

PERIOD OF RECORD.--July to September 1977.

GAGE.--Water-stage recorder. Altitude of gage is 3,710 ft (1,131 m), from topographic map.

REMARKS.--Records good.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period July to September, 8.7 ft^3/s (0.25 m^3/s) Sept. 29, gage height, 1.89 ft (0.576 m), no peak above base of 230 ft^3/s (6.51 m^3/s); minimum daily, 0.52 ft^3/s (0.015 m^3/s) Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										3.4	1.6	4.4
2										3.4	1.5	3.9
3										3.2	1.6	3.4
4										3.9	1.3	3.2
5										4.2	1.1	3.0
6										4.2	1.2	2.6
7										3.9	1.1	2.4
8										3.4	.97	2.4
9										3.4	.97	2.4
10										3.2	.86	2.4
11										3.0	.86	2.3
12										3.0	.67	2.3
13										2.8	.67	2.3
14										2.8	.57	2.3
15										2.6	.76	2.1
16										2.4	.67	2.1
17										2.4	.56	2.3
18										3.2	.52	2.3
19										3.4	.54	2.4
20										3.0	.54	2.8
21										2.8	.54	4.2
22										2.6	.54	4.2
23										2.3	.54	3.6
24										2.3	1.9	5.1
25										2.4	3.2	4.7
26										2.9	5.1	4.2
27										2.4	4.2	3.9
28										2.1	3.4	5.7
29										2.1	4.2	8.2
30										2.1	6.9	6.9
31										1.9	6.1	---
TOTAL										90.6	55.18	104.0
MEAN										2.92	1.78	3.47
MAX										4.2	6.9	8.2
MIN										1.9	.52	2.1
CFSM										.06	.04	.07
IN.										.07	.04	.08
AC-FT										180	109	206

13318800 GRANDE RONDE RIVER AT HILGARD, OR

LOCATION.--Lat 45°20'21", long 118°14'35", in NE¼NE¼ sec.1, T.3 S., R.36 E., Union County, Hydrologic Unit 17060104, on left bank 8.8 mi (14.2 km) northwest of La Grande, 1.6 mi (2.6 km) upstream from Fivepoint Creek, and at mile 171.3 (275.6 km).

DRAINAGE AREA.--555 mi^2 (1,437 km^2).

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,993.62 ft (912.455 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair. Slight regulation by city of La Grande reservoir on Beaver Creek, capacity, about 900 acre-ft (1.11 hm^3). Diversions for irrigation above station. Since 1909, city of La Grande has diverted about 3 ft^3/s (0.08 m^3/s) from Beaver Creek above station for domestic water supply.

AVERAGE DISCHARGE.--11 years, 292 ft^3/s (8.269 m^3/s), 211,600 acre-ft/yr (261 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,740 ft^3/s (134 m^3/s) Mar. 13, 1972, gage height, 7.18 ft (2.188 m); maximum gage height, 12.25 ft (3.734 m) Jan. 15, 1974 (ice jam); minimum discharge, 9.6 ft^3/s (0.27 m^3/s) Aug. 17, 18, 23, 1973.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 30, 1965, reached a stage of about 9 ft (2.74 m), from floodmark, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,560 ft^3/s (44.2 m^3/s) Apr. 7, gage height, 4.89 ft (1.490 m), no peak above base of 1,700 ft^3/s (48.1 m^3/s); minimum, 15 ft^3/s (0.42 m^3/s) Aug. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	46	34	31	31	52	164	400	348	61	26	42
2	40	53	36	33	29	49	161	416	334	61	25	34
3	62	53	35	30	31	48	178	411	295	57	24	30
4	49	48	40	28	32	46	315	405	285	61	22	27
5	44	45	39	25	28	46	457	368	240	71	22	26
6	42	44	40	23	32	50	654	334	271	66	22	24
7	40	43	42	21	37	67	1030	315	285	57	26	23
8	39	42	44	22	42	88	1290	310	334	52	24	22
9	38	40	40	24	47	95	1050	339	261	49	21	21
10	37	40	37	22	52	82	798	353	219	49	19	21
11	38	40	34	26	60	71	693	373	196	46	19	20
12	38	39	32	31	68	74	654	384	199	44	18	21
13	37	36	33	30	78	62	693	416	207	43	18	20
14	36	31	29	28	62	62	623	400	227	40	17	20
15	35	48	26	27	64	56	546	373	223	38	19	20
16	36	56	31	30	66	59	587	363	178	37	22	21
17	36	61	30	34	62	57	532	358	157	36	19	23
18	34	53	28	31	59	56	457	368	142	37	18	23
19	33	50	27	29	56	62	411	348	130	45	16	23
20	34	45	26	28	54	64	379	348	136	42	16	26
21	36	44	27	30	52	64	389	334	119	36	16	35
22	37	46	28	28	49	73	411	324	109	34	16	38
23	36	42	30	27	48	111	494	363	102	35	15	35
24	36	36	27	26	46	97	594	363	93	36	17	42
25	40	48	31	24	45	99	646	329	86	35	25	46
26	50	35	37	23	45	106	638	343	78	40	35	40
27	46	16	35	23	44	124	539	400	74	42	42	37
28	43	30	32	21	50	109	481	384	69	33	35	38
29	42	32	30	20	---	104	445	368	66	30	33	57
30	42	33	29	23	---	90	411	353	62	28	39	57
31	43	---	30	26	---	111	---	339	---	26	59	---
TOTAL	1234	1275	1019	824	1369	2334	16720	11282	5565	1367	745	912
MEAN	39.8	42.5	32.9	26.6	48.9	75.3	557	364	186	44.1	24.0	30.4
MAX	62	61	44	34	78	124	1290	416	348	71	59	57
MIN	33	16	26	20	28	46	161	310	62	26	15	20
AC-FT	2450	2530	2020	1630	2720	4630	33160	22380	11040	2710	1480	1810

CAL YR 1976 TOTAL 126790 MEAN 346 MAX 2990 MIN 16 AC-FT 251500
WTR YR 1977 TOTAL 44646 MEAN 122 MAX 1290 MIN 15 AC-FT 88560

13319000 GRANDE RONDE RIVER AT LA GRANDE, OR

LOCATION.--Lat 45°20'47", long 118°07'26", in NW¼SE¼ sec.36, T.2 S., R.37 E., Union County, Hydrologic Unit 17060104, on right bank 1.8 mi (2.9 km) northwest of La Grande, 5.7 mi (9.2 km) downstream from Fivepoint Creek, and at mile 164.0 (263.9 km).

DRAINAGE AREA.--678 mi^2 (1,756 km^2).

PERIOD OF RECORD.--October 1903 to September 1915, February 1918 to September 1923, October 1925 to current year. Monthly discharge only for some periods, published in WSP 1317. Published as "at Hilgard" 1903-15.

REVISED RECORDS.--WSP 768: 1933. WSP 1397: 1904-11, 1913, 1915, 1919-20, 1922-23, 1926, 1929-31, 1936-37, 1939, 1942. WSP 1737: Drainage area. WRD Oreg. 1974: 1973(M).

GAGE.--Water-stage recorder. Datum of gage is 2,826.25 ft (861.441 m) above mean sea level. Nov. 6, 1903, to Sept. 30, 1915, nonrecording gage at site 5.5 mi (8.8 km) upstream at various datums. Feb. 16, 1918, to June 28, 1923, and Oct. 1, 1925, to Nov. 23, 1931, nonrecording gage at site 0.7 mi (1.1 km) downstream at various datums. Nov. 24, 1931, to Oct. 8, 1965, water-stage recorder at site 0.3 mi (0.5 km) upstream at datum 4.61 ft (1.405 m) higher.

REMARKS.--Records good except those for winter periods, which are fair. Since 1915, slight regulation by city of La Grande reservoir on Beaver Creek, capacity, about 900 acre-ft (1.11 hm^3). Diversions for irrigation above station. Since 1909, city of La Grande has diverted about 3 ft^3/s (0.08 m^3/s) from Beaver Creek above station for domestic water supply.

AVERAGE DISCHARGE.--69 years, 380 ft^3/s (10.76 m^3/s), 275,300 acre-ft/yr (339 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,100 ft^3/s (399 m^3/s) Jan. 30, 1965, gage height, 11.44 ft (3.487 m), site and datum then in use, from rating curve extended above 7,200 ft^3/s (204 m^3/s); minimum, 3.9 ft^3/s (0.11 m^3/s) Aug. 26, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,060 ft^3/s (58.3 m^3/s) Apr. 8, gage height, 5.69 ft (1.734 m), no peak above base of 2,100 ft^3/s (59.5 m^3/s); minimum, 13 ft^3/s (0.37 m^3/s) Nov. 27, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	50	42	40	33	71	211	451	400	74	28	54
2	44	57	44	42	31	60	225	463	389	74	26	44
3	65	59	43	38	33	54	228	463	346	71	27	39
4	57	54	49	34	35	50	411	459	326	74	26	36
5	50	50	43	31	32	48	636	415	319	86	23	34
6	47	47	46	28	37	59	909	381	297	83	24	31
7	44	46	49	25	41	81	1340	349	306	74	30	29
8	43	42	52	27	46	105	1670	339	356	65	28	28
9	40	43	47	30	51	116	1330	374	288	59	25	27
10	39	44	43	27	56	100	1010	389	244	56	22	27
11	39	44	39	33	66	83	888	427	219	53	21	26
12	39	44	37	41	74	94	828	431	219	48	20	25
13	39	42	38	38	82	72	877	467	225	47	19	25
14	38	34	35	35	70	72	780	443	247	43	19	23
15	36	47	33	32	72	65	672	411	244	40	20	23
16	36	62	41	39	75	67	714	408	200	36	27	24
17	36	67	38	44	72	67	641	404	175	35	22	27
18	35	60	36	40	70	65	555	415	154	36	19	28
19	34	57	34	37	68	78	484	400	144	44	18	28
20	35	53	32	35	65	80	447	393	148	44	18	29
21	38	50	35	39	62	80	447	381	135	35	18	42
22	39	51	37	36	61	87	472	371	124	33	18	46
23	39	48	40	33	59	144	569	415	114	33	18	44
24	38	42	33	31	58	135	682	427	105	34	19	50
25	42	51	40	28	58	127	753	378	100	33	26	60
26	54	42	49	26	57	139	736	393	92	35	43	50
27	53	17	45	26	57	168	612	480	89	46	50	47
28	48	38	41	24	72	142	546	459	84	36	44	48
29	46	39	38	22	---	131	506	443	80	33	42	71
30	46	41	35	25	---	116	467	415	78	30	46	80
31	46	---	37	29	---	146	---	400	---	30	72	---
TOTAL	1323	1421	1251	1015	1595	2902	20646	12844	6247	1520	858	1145
MEAN	42.7	47.4	40.4	32.7	57.0	93.6	688	414	208	49.0	27.7	38.2
MAX	65	67	52	44	82	168	1670	480	400	86	72	80
MIN	34	17	32	22	31	48	211	339	78	30	18	23
AC-FT	2620	2820	2480	2010	3160	5760	40950	25480	12390	3010	1700	2270

CAL YR 1976 TOTAL 169903 MEAN 464 MAX 4440 MIN 17 AC-FT 337000
WTR YR 1977 TOTAL 52767 MEAN 145 MAX 1670 MIN 17 AC-FT 104700

13320000 CATHERINE CREEK NEAR UNION, OR

LOCATION.--Lat 45°09'20", long 117°46'26", in NW¼SE¼ sec.2, T.5 S., R.40 E., Union County, Hydrologic Unit 17060104, on right bank 3.0 mi (4.8 km) downstream from Little Catherine Creek, 5.5 mi (8.8 km) southeast of Union, and at mile 25.4 (40.9 km).

DRAINAGE AREA.--105 mi^2 (272 km^2).

PERIOD OF RECORD.--May 1906 to May 1907 (gage heights only), August 1911 to December 1912, March to September 1915, February 1918 to September 1919, October 1925 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1397: 1912-13, 1919, 1926, 1928-33, 1937, 1939, 1940(M), 1941-43, 1950.

GAGE.--Water-stage recorder. Datum of gage is 3,081.76 ft (939.320 m) above mean sea level (Oregon State Highway Department bench mark). Prior to Nov. 28, 1938, nonrecording gage at several sites within 1.8 mi (2.9 km) of present site at various datums. Nov. 28, 1938, to May 16, 1939, water-stage recorder at site 400 ft (122 m) downstream at datum 4.29 ft (1.308 m) lower.

REMARKS.--Records good except those for winter periods, which are fair. No regulation. Several small diversions for irrigation above station. Since 1937, diversion to Big Creek in Powder River basin provides a small part of the water used for irrigation in that basin.

AVERAGE DISCHARGE.--54 years (water years 1912, 1919, 1926-77), 118 ft^3/s (3.342 m^3/s), 85,490 acre-ft/yr (105 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,740 ft^3/s (49.3 m^3/s) May 27, 1948, gage height, 4.57 ft (1.393 m); minimum, 6.5 ft^3/s (0.18 m^3/s) Feb. 4, 1955, result of freezeup; minimum daily, 8 ft^3/s (0.23 m^3/s) Nov. 7, 1925.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 475 ft^3/s (13.5 m^3/s) June 8, gage height, 2.56 ft (0.780 m), no peak above base of 500 ft^3/s (14.2 m^3/s); minimum, 8.8 ft^3/s (0.25 m^3/s) Jan. 26, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	32	25	25	26	25	32	157	159	46	22	28
2	36	37	29	24	26	25	31	147	155	47	22	25
3	31	33	28	22	28	25	33	137	145	45	22	23
4	29	30	32	22	28	24	39	121	159	46	21	21
5	28	29	27	17	27	25	55	111	179	47	21	21
6	28	28	29	14	27	25	83	102	188	44	21	20
7	27	27	31	23	26	26	131	96	200	41	22	19
8	26	26	29	22	28	28	167	94	263	39	21	18
9	26	26	29	19	28	28	145	96	171	37	20	18
10	26	26	25	16	29	26	127	120	147	37	19	18
11	26	26	24	21	27	25	121	111	141	36	19	18
12	25	26	24	25	28	26	125	107	131	35	18	18
13	25	25	25	24	26	27	129	111	123	35	18	18
14	25	25	22	23	26	27	112	111	114	34	18	17
15	25	29	23	20	25	25	111	103	105	32	18	18
16	25	34	26	25	25	25	116	102	98	31	17	21
17	25	31	23	27	25	25	111	98	87	31	17	21
18	25	30	22	27	25	26	103	105	83	31	17	21
19	25	28	20	25	25	26	94	102	80	31	17	21
20	26	25	18	22	26	26	93	100	75	30	17	30
21	25	25	20	24	29	27	93	100	71	29	16	26
22	26	25	22	26	27	29	103	100	66	28	17	24
23	25	25	23	25	25	33	139	147	63	27	16	22
24	26	25	20	25	25	31	171	147	59	29	22	25
25	30	25	23	23	24	31	188	135	57	31	27	26
26	31	25	25	22	24	32	183	152	54	30	44	25
27	29	18	28	23	25	32	164	152	53	27	31	23
28	29	24	27	24	26	31	159	155	51	25	25	30
29	29	26	26	19	---	32	162	147	49	25	31	48
30	29	26	25	21	---	31	162	143	48	24	48	35
31	29	---	24	24	---	31	---	143	---	23	37	---
TOTAL	843	817	774	699	736	855	3482	3752	3374	1053	701	698
MEAN	27.2	27.2	25.0	22.5	26.3	27.6	116	121	112	34.0	22.6	23.3
MAX	36	37	32	27	29	33	188	157	263	47	48	48
MIN	25	18	18	14	24	24	31	94	48	23	16	17
AC-FT	1670	1620	1540	1390	1460	1700	6910	7440	6690	2090	1390	1380

CAL YR 1976 TOTAL 43396 MEAN 119 MAX 757 MIN 18 AC-FT 86080
WTR YR 1977 TOTAL 17784 MEAN 48.7 MAX 263 MIN 14 AC-FT 35270

13323500 GRANDE RONDE RIVER NEAR ELGIN, OR

LOCATION.--Lat 45°30'45", long 117°55'35", in NW¼NW¼ sec.3, T.1 S., R.39 E., Union County, Hydrologic Unit 17060104, on right bank 700 ft (213 m) upstream from abandoned highway bridge, 1.5 mi (2.4 km) downstream from Willow Creek, 3.6 mi (5.8 km) south of Elgin, and at mile 104.2 (167.7 km).

DRAINAGE AREA.--1,250 mi^2 (3,240 km^2), approximately.

PERIOD OF RECORD.--August 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,660.31 ft (810.862 m) above mean sea level.

REMARKS.--Records good. No regulation. Many diversions for irrigation above station.

AVERAGE DISCHARGE.--22 years, 660 ft^3/s (18.69 m^3/s), 478,200 acre-ft/yr (590 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,480 ft^3/s (184 m^3/s) Feb. 2, 1965, gage height, 13.79 ft (4.203 m); no flow Aug. 20-24, 1973.

EXTREMES OUTSIDE PERIOD OF RECORD.--Outstanding floods occurred in 1894 and 1917, based on Corps of Engineers flood profiles. Flood in May 1948 reached an elevation of 2,672.9 ft (814.70 m) on Corps of Engineers gage at bridge 700 ft (213 m) downstream, discharge, 5,690 ft^3/s (161 m^3/s), result of discharge measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,820 ft^3/s (51.5 m^3/s) Apr. 9, gage height, 6.58 ft (2.006 m); minimum, 2.6 ft^3/s (0.074 m^3/s) Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	100	70	75	75	127	277	569	724	15	8.8	21
2	68	106	79	74	76	132	346	544	710	13	8.8	30
3	76	113	82	76	78	137	355	560	672	13	8.0	30
4	90	120	86	78	80	145	387	589	628	24	8.0	28
5	96	118	82	78	83	145	582	576	598	28	9.2	26
6	96	112	89	74	83	135	806	541	560	26	10	24
7	112	109	101	72	85	139	1130	501	550	23	11	23
8	109	106	94	72	87	150	1600	480	611	18	11	17
9	115	103	100	75	89	172	1790	480	635	14	11	14
10	125	100	104	80	98	185	1580	492	573	11	8.8	11
11	120	98	78	86	146	176	1320	523	504	9.2	7.2	11
12	115	97	56	91	152	158	1170	557	445	9.2	6.3	11
13	101	98	61	98	152	162	1110	605	403	8.4	5.2	8.8
14	90	97	61	103	152	148	1100	635	384	7.6	4.5	6.9
15	78	94	83	107	143	145	1010	641	390	7.6	4.3	6.9
16	68	100	98	112	127	137	930	618	352	7.2	3.9	7.6
17	66	115	100	113	112	134	926	598	308	7.2	3.5	9.6
18	66	125	94	113	101	139	854	598	250	6.6	2.9	12
19	68	130	93	112	100	145	759	605	195	6.3	2.6	14
20	70	137	90	110	98	162	676	589	176	6.9	2.8	19
21	75	127	86	110	106	164	628	582	160	6.9	2.8	23
22	87	117	82	109	110	156	602	579	139	6.6	3.1	25
23	96	113	80	104	100	164	605	585	120	6.3	3.5	35
24	94	107	78	100	106	202	693	672	100	6.0	3.5	44
25	89	101	79	93	113	214	828	703	79	5.7	3.5	71
26	101	103	87	91	112	216	880	714	62	5.7	4.5	96
27	103	90	97	86	100	230	872	798	53	5.7	6.9	90
28	104	75	98	82	107	262	780	835	42	5.7	6.9	100
29	103	79	104	76	---	250	676	839	25	6.6	8.0	103
30	101	70	97	75	---	236	621	809	21	6.6	12	106
31	101	---	82	75	---	232	---	763	---	6.6	15	---
TOTAL	2850	3160	2671	2800	2971	5299	25893	19180	10469	329.6	207.5	1023.8
MEAN	91.9	105	86.2	90.3	106	171	863	619	349	10.6	6.69	34.1
MAX	125	137	104	113	152	262	1790	839	724	28	15	106
MIN	66	70	56	72	75	127	277	480	21	5.7	2.6	6.9
AC-FT	5650	6270	5300	5550	5890	10510	51360	38040	20770	654	412	2030

CAL YR 1976 TOTAL 293194.0 MEAN 801 MAX 4850 MIN 30 AC-FT 581600
WTR YR 1977 TOTAL 76853.9 MEAN 211 MAX 1790 MIN 2.6 AC-FT 152400

13325000 EAST FORK WALLOWA RIVER NEAR JOSEPH, OR

LOCATION.--Lat 45°16'20", long 117°12'35", in NE¼ sec.29, T.3 S., R.45 E., Wallowa County, Hydrologic Unit 17060105, on left bank 0.2 mi (0.3 km) upstream from confluence with West Fork, 1.0 mi (1.6 km) upstream from Wallowa Lake, 5.5 mi (8.8 km) south of Joseph, and at mile 55.0 (88.5 km).

DRAINAGE AREA.--10.3 mi² (26.7 km²).

PERIOD OF RECORD.--July 1924 to current year. Prior to October 1952, records published separately as East Fork Wallowa River near Joseph and Wallowa Falls powerplant tailrace near Joseph.

REVISED RECORDS.--WSP 1247: 1931, 1937(M), 1948-49, records for river station; 1948, records for tailrace station. WSP 1737: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,517.69 ft (1,376.992 m) above mean sea level (Pacific Power & Light Co. bench mark). Prior to Apr. 8, 1950, nonrecording gage at same site and datum.

REMARKS.--Records good. All records presented herein include flow in Wallowa Falls powerplant tailrace of Pacific Power & Light Co. Most of low flow is diverted at dam 1.5 mi (2.4 km) upstream into a conduit 1.0 mi (1.6 km) above Wallowa Falls powerhouse and discharged into West Fork 0.4 mi (0.6 km) below powerhouse.

AVERAGE DISCHARGE.--53 years, 21.6 ft³/s (0.612 m³/s), 28.48 in/yr (723 mm/yr), 15,650 acre-ft/yr (19.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 450 ft³/s (12.7 m³/s) July 25, 1937 (no flow in powerplant tailrace), from rating curve extended above 80 ft³/s (2.27 m³/s); minimum daily, 6.2 ft³/s (0.18 m³/s) Feb. 21, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 151 ft³/s (4.28 m³/s) June 7; minimum daily, 6.2 ft³/s (0.18 m³/s) Feb. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	14	12	11	10	10	9.5	25	34	13	10	9.4
2	17	14	12	12	10	10	9.5	25	40	13	10	9.0
3	17	14	12	12	10	10	9.5	20	37	13	10	9.0
4	16	14	13	11	9.5	10	9.7	18	55	13	10	8.8
5	16	14	13	10	9.5	10	10	15	81	13	9.4	8.9
6	16	14	13	11	9.5	10	11	15	86	13	9.6	8.8
7	16	14	13	11	9.4	10	12	15	89	12	10	8.8
8	16	14	13	11	9.6	11	12	14	80	12	9.4	8.7
9	15	13	12	11	9.7	11	11	15	53	12	9.8	8.4
10	15	13	13	10	9.6	11	11	18	42	12	9.4	8.4
11	15	13	12	11	9.3	12	11	15	36	12	8.8	8.4
12	14	14	12	11	9.6	10	11	14	33	12	8.9	8.4
13	14	13	12	11	9.6	9.6	11	16	30	12	9.0	8.5
14	13	13	12	11	9.5	9.0	10	16	28	12	9.0	8.3
15	14	12	12	11	10	8.9	11	15	26	12	9.0	8.9
16	14	13	13	11	9.7	9.4	11	14	25	11	8.9	10
17	14	14	12	11	9.8	9.7	11	15	23	11	9.0	9.7
18	14	13	12	11	9.8	9.7	11	15	23	11	9.1	9.1
19	14	13	12	11	9.8	9.6	11	15	22	11	8.7	11
20	14	13	12	11	9.7	9.7	11	15	21	11	8.7	11
21	14	12	12	11	6.2	10	11	16	20	11	8.9	10
22	14	12	12	11	9.2	9.8	13	17	19	11	8.9	10
23	14	12	12	10	10	9.6	15	24	18	11	9.2	9.7
24	14	12	12	10	10	9.9	19	21	16	12	11	10
25	14	12	12	11	10	9.6	20	19	16	12	11	10
26	14	11	12	11	10	9.4	21	20	15	13	11	9.7
27	14	11	12	11	10	9.4	21	19	15	12	9.8	9.4
28	14	11	12	11	10	9.7	23	19	15	11	9.6	14
29	14	9.9	12	10	---	9.9	25	18	13	11	10	14
30	14	11	12	10	---	10	25	20	14	11	12	12
31	14	---	12	10	---	9.5	---	28	---	11	10	---
TOTAL	454	382.9	379	336	269.0	307.4	407.2	551	1025	367	298.1	290.3
MEAN	14.6	12.8	12.2	10.8	9.61	9.92	13.6	17.8	34.2	11.8	9.62	9.68
MAX	17	14	13	12	10	12	25	28	89	13	12	14
MIN	13	9.9	12	10	6.2	8.9	9.5	14	13	11	8.7	8.3
CFSM	1.42	1.24	1.18	1.05	.93	.96	1.32	1.73	3.32	1.15	.93	.94
IN.	1.64	1.38	1.37	1.21	.97	1.11	1.47	1.99	3.70	1.33	1.08	1.05
AC-FT	901	759	752	666	534	610	808	1090	2030	728	591	576

CAL YR 1976 TOTAL 8017.5 MEAN 21.9 MAX 72 MIN 7.1 CFSM 2.13 IN 28.96 AC-FT 15900
WTR YR 1977 TOTAL 5066.9 MEAN 13.9 MAX 89 MIN 6.2 CFSM 1.35 IN 18.30 AC-FT 10050

13326000 WALLOWA LAKE NEAR JOSEPH, OR

LOCATION.--Lat 45°20'10", long 117°13'15", in NW¼ sec.5, T.3 S., R.45 E., Wallowa County, Hydrologic Unit 17060105, at spillway near right end of Wallowa Lake dam on Wallowa River, 1.3 mi (2.1 km) southeast of Joseph, and at mile 50.2 (80.8 km).

DRAINAGE AREA.--50.8 mi^2 (131.6 km^2).

PERIOD OF RECORD.--November 1903 to July 1906 (gage height only), January 1912 to March 1914, May to September 1915 (gage heights and change in contents only), October 1925 to June 1926, December 1926 to current year. Monthend contents only for some periods, published in WSP 1317. November 1903 to March 1905 published as Wallowa River at Joseph. Change in contents for January 1912 to March 1914 and May to September 1915 published with records for Wallowa River at Joseph.

REVISED RECORDS.--WSP 1737: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,355.66 ft (1,327.605 m) above mean sea level. Prior to Oct. 1, 1925, nonrecording gage at several sites within 0.5 mi (0.8 km) of present site at different datums. Oct. 1, 1925, to June 30, 1926, Dec. 1, 1926, to May 18, 1961, nonrecording gage near left end of dam at same datum.

REMARKS.--Reservoir is formed by concrete dam. Capacity, 42,750 acre-ft (52.7 hm^3) between gage heights 0.0 (sill of outlet gates) and 26.8 ft (8.169 m), spillway crest. About 5,300 acre-ft (6.53 hm^3) dead storage above outlet gates, because channel is about 3.4 ft (1.036 m) above outlet gates. Dead storage below outlet gates not known. Records are based on capacities above outlet gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 47,830 acre-ft (59.0 hm^3) June 5-7, 1957, gage height, 29.85 ft (9.098 m); minimum observed, 4,790 acre-ft (5.91 hm^3) Oct. 10, 1929, gage height, 3.10 ft (0.945 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 39,430 acre-ft (48.6 hm^3) June 11, gage height, 24.80 ft (7.559 m); minimum, 10,690 acre-ft (13.2 hm^3) Sept. 18-20, gage height, 6.90 ft (2.103 m).

MONTHEND GAGE HEIGHT AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Gage height (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	18.59	29,250	-
Oct. 31	18.50	29,110	-140
Nov. 30	18.56	29,210	+100
Dec. 31	16.73	29,480	+270
CAL YR 1976	-	-	-2,130
Jan. 31	18.87	29,710	+230
Feb. 28	19.31	30,430	+720
Mar. 31	19.99	31,530	+1,100
Apr. 30	22.17	35,100	+3,570
May 31	21.90	34,660	-440
June 30	21.06	33,280	-1,380
July 31	13.30	20,770	-12,510
Aug. 31	7.25	11,240	-9,530
Sept.30	7.63	11,840	+600
WTR YR 1977	-	-	-17,410

13327500 WALLOWA RIVER AT JOSEPH, OR

LOCATION.--Lat 45°20'15", long 117°13'35", in NW¼ sec.5, T.3 S., R.45 E., Wallowa County, Hydrologic Unit 17060105, on left bank 0.2 mi (0.3 km) downstream from Wallowa Lake dam, 1.1 mi (1.8 km) south of Joseph, and at mile 50.0 (80.4 km).

DRAINAGE AREA.--50.9 mi^2 (131.8 km^2).

PERIOD OF RECORD.--November 1903 to August 1907, June 1908 to March 1914, May to September 1915, December 1926 to current year. Monthly discharge only for some periods, published in WSP 1317. Published as "near Joseph" 1911.

REVISED RECORDS.--WSP 1397: 1906. WSP 1737: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,326.86 ft (1,318.827 m) above mean sea level. Nov. 12, 1903, to Sept. 25, 1915, nonrecording gage at several sites at lake outlet or near present site at different datums.

REMARKS.--Records good. Monthly discharge adjusted for storage in Wallowa Lake (see station 13326000) and diversion from Wallowa Lake by Silver Lake ditch. Silver Lake ditch diverts at Wallowa Lake dam for irrigation northeast of Joseph. City of Joseph Diverts less than 1.0 ft^3/s (0.028 m^3/s) from Wallowa Lake for municipal use.

AVERAGE DISCHARGE.--50 years (water years 1928-77), 133 ft^3/s (3.767 m^3/s), 35.48 in/yr (901 mm/yr), 96,360 acre-ft/yr (119 hm^3/yr), adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,550 ft^3/s (43.9 m^3/s) June 10, 1969, gage height, 5.15 ft (1.570 m); no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 303 ft^3/s (8.58 m^3/s) June 26, gage height, 3.11 ft (0.948 m); minimum, 16 ft^3/s (0.45 m^3/s) Mar. 11 to Apr. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	37	32	28	24	17	16	43	110	244	168	64
2	53	37	32	28	24	17	16	41	114	236	164	53
3	53	37	32	28	23	17	16	41	114	233	181	50
4	53	37	29	28	18	17	16	41	110	231	191	50
5	53	37	28	28	18	17	16	94	110	214	203	57
6	53	36	28	28	18	17	17	113	124	183	205	59
7	54	37	28	28	18	17	17	126	155	176	208	58
8	54	36	28	28	18	17	20	141	185	176	205	52
9	54	36	27	27	18	17	23	145	205	181	197	50
10	54	36	27	27	18	17	23	157	210	183	193	49
11	54	36	27	27	18	16	23	163	212	172	189	50
12	54	36	27	28	18	16	23	166	212	170	189	49
13	54	36	27	28	18	16	23	168	233	163	181	49
14	54	36	27	28	18	16	23	178	238	164	172	4[illegible]
15	54	36	27	28	17	16	23	174	236	176	164	52
16	54	35	28	28	17	16	23	170	236	201	157	54
17	54	35	28	28	17	16	23	168	257	214	150	58
18	54	34	28	28	17	16	23	139	266	238	127	58
19	54	34	28	26	17	16	23	104	268	240	116	58
20	54	34	28	24	17	16	23	69	275	233	117	57
21	53	34	28	24	17	16	23	74	275	238	116	51
22	53	34	28	24	17	16	23	90	273	242	108	42
23	53	34	28	24	17	16	23	113	287	244	108	37
24	39	34	28	24	17	16	23	110	294	236	102	35
25	33	34	28	24	17	16	23	107	291	233	97	35
26	33	34	28	24	17	16	23	114	298	216	101	35
27	33	34	28	24	17	16	23	110	287	199	92	35
28	33	33	28	24	17	16	23	102	271	189	90	35
29	33	32	28	24	---	16	23	90	255	187	86	33
30	33	32	28	24	---	16	35	101	255	185	83	32
31	36	---	28	24	---	16	---	105	---	178	71	---
TOTAL	1507	1053	874	815	507	506	652	3557	6656	6375	4531	1446
MEAN	48.6	35.1	28.2	26.3	18.1	16.3	21.7	115	222	206	146	48.2
MAX	54	37	32	28	24	17	35	178	298	244	208	64
MIN	33	32	27	24	17	16	16	41	110	163	71	32
AC-FT	2990	2090	1730	1620	1010	1000	1290	7060	13200	12640	8990	2870
MEAN†	51.7	41.8	35.8	33.0	33.5	36.6	83.7	119	241	50.7	34.1	64.7
CFSM†	1.02	.82	.70	.65	.66	.72	1.64	2.34	4.73	1.00	.67	1.27
IN.†	1.17	.92	.81	.75	.68	.83	1.83	2.70	5.28	1.15	.77	1.42
AC-FT†	3,180	2,490	2,200	2,030	1,860	2,250	4,980	7,310	14,340	3,120	2,100	3,850

CAL YR 1976 TOTAL 44340 MEAN 121 MAX 384 MIN 27 AC-FT 87950 MEAN† 132 CFSM† 2.59 IN.† 35.2 AC-FT† 96,400
WTR YR 1977 TOTAL 28479 MEAN 78.0 MAX 298 MIN 16 AC-FT 56490 MEAN† 68.8 CFSM† 1.35 IN.† 18.3 AC-FT† 49,700

† Adjusted for change in contents of Wallowa Lake and diversion by Silver Lake ditch.

13329500 HURRICANE CREEK NEAR JOSEPH, OR

LOCATION.--Lat 45°20'15", long 117°17'30", in NE¼ sec.3, T.3 S., R.44 E., Wallowa County, Hydrologic Unit 17060105, on left bank 350 ft (107 m) upstream from intake of Moonshine ditch, 3.5 mi (5.6 km) southwest of Joseph, and at mile 7.5 (12.1 km).

DRAINAGE AREA.--29.6 mi² (76.7 km²).

PERIOD OF RECORD.--April to September 1915, April 1924 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1397: 1915, 1925-28. WSP 1737: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,500 ft (1,370 m), by barometer. Apr. 27 to Sept. 3, 1915, nonrecording gage at site 250 ft (76 m) downstream at different datum. Apr. 23, 1924, to June 13, 1933, water-stage recorder at site 150 ft (46 m) downstream at different datum.

REMARKS.--Records poor. No regulation or diversion above station.

AVERAGE DISCHARGE.--53 years, 74.1 ft³/s (2.099 m³/s), 34.00 in/yr (864 mm/yr), 53,690 acre-ft/yr (66.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,110 ft³/s (31.4 m³/s) June 9, 1948, gage height, 3.55 ft (1.082 m); maximum gage height, 6.94 ft (2.115 m) June 4, 1977, backwater from debris; minimum discharge, 2.8 ft³/s (0.079 m³/s) Mar. 2, 1955, result of ice jam upstream; minimum daily, 6.0 ft³/s (0.17 m³/s) Jan. 6, Apr. 13, 1945.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 378 ft³/s (10.7 m³/s) June 4, no peak above base of 400 ft³/s (11.3 m³/s); maximum gage height, 6.94 ft (2.115 m) June 4, backwater from debris; minimum discharge, 12 ft³/s (0.34 m³/s), many days in February and March.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	23	18	16	13	12	13	145	158	50	33	33
2	35	25	19	16	13	12	13	136	232	49	33	31
3	34	24	19	16	13	12	13	87	190	49	33	29
4	33	23	19	16	13	12	14	68	223	49	33	29
5	32	23	19	16	13	12	15	57	136	48	32	28
6	31	22	19	16	13	12	17	49	210	46	32	27
7	31	23	20	16	13	12	24	45	241	44	31	27
8	30	22	19	16	12	12	30	42	232	44	31	27
9	29	21	19	16	12	12	27	43	142	44	31	27
10	29	21	18	16	12	12	26	54	109	44	31	27
11	29	22	18	16	12	12	27	48	100	42	31	27
12	29	21	18	16	12	12	30	46	104	42	31	26
13	29	20	18	16	13	12	34	62	104	41	31	26
14	28	20	18	16	13	12	30	79	102	40	30	25
15	27	21	18	16	13	12	31	58	107	40	30	25
16	26	24	17	16	13	12	34	51	109	39	29	27
17	26	24	17	16	13	12	35	48	102	39	29	27
18	25	23	16	15	13	12	34	46	95	39	29	26
19	24	21	14	15	13	12	34	43	91	38	29	27
20	24	20	13	15	13	12	34	43	83	38	29	31
21	24	20	14	15	13	12	36	48	79	37	29	30
22	24	19	15	15	13	13	44	55	75	37	28	29
23	24	19	16	15	12	13	68	85	67	38	28	28
24	23	19	16	14	12	13	107	81	61	39	32	28
25	24	19	16	14	12	13	133	67	58	38	31	29
26	23	17	17	14	12	13	133	67	57	38	31	27
27	23	15	17	14	12	13	120	62	53	35	30	27
28	23	15	16	14	12	13	125	59	51	35	30	49
29	23	16	16	14	---	13	139	54	50	34	34	54
30	23	16	16	13	---	13	139	49	50	34	43	36
31	23	---	16	13	---	13	---	102	---	33	36	---
TOTAL	839	618	531	472	353	382	1559	1979	3471	1263	970	889
MEAN	27.1	20.6	17.1	15.2	12.6	12.3	52.0	63.8	116	40.7	31.3	29.6
MAX	35	25	20	16	13	13	139	145	241	50	43	54
MIN	23	15	13	13	12	12	13	42	50	33	28	25
CFSM	.92	.70	.58	.51	.43	.42	1.76	2.16	3.92	1.38	1.06	1.00
IN.	1.05	.78	.67	.59	.44	.48	1.96	2.49	4.36	1.59	1.22	1.12
AC-FT	1660	1230	1050	936	700	758	3090	3930	6880	2510	1920	1760

CAL YR 1976 TOTAL 28316 MEAN 77.4 MAX 318 MIN 13 CFSM 2.62 IN 35.59 AC-FT 56160
WTR YR 1977 TOTAL 13326 MEAN 36.5 MAX 241 MIN 12 CFSM 1.23 IN 16.75 AC-FT 26430

NOTE.--No gage-height record Jan. 6 to Feb. 3.

13329900 WALLOWA RIVER AT WALLOWA, OR

LOCATION.--Lat 45°33'20", long 117°28'45", in SW¼NW¼ sec.20, T.1 N., R.43 E., Wallowa County, Hydrologic Unit 17060105, on right bank upstream side of bridge on county road 2.8 mi (4.5 km) east of Wallowa, and at mile 26.5 (42.6 km).

DRAINAGE AREA.--Indeterminate.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1976 to current year.

REMARKS.--Temperature recorder clock stopped Jan. 6 to Feb. 16, June 5 to July 27.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURES: Maximum, 21.5°C July 27, 1977; minimum recorded, 0.0°C Jan. 5, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 21.5°C July 27; minimum recorded, 0.0°C Jan. 5.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.0	10.0	10.0	8.5	4.5	2.0	3.0	1.5	---	---	6.5	4.0
2	13.5	11.0	10.0	9.0	4.0	2.0	3.5	2.5	---	---	6.0	4.0
3	11.0	9.0	10.0	8.5	5.0	2.0	3.0	2.5	---	---	6.0	4.5
4	11.0	7.0	9.5	5.5	5.5	4.0	3.0	1.5	---	---	8.0	4.0
5	11.0	8.0	9.0	6.5	4.0	2.0	1.5	0.0	---	---	8.0	3.5
6	13.5	10.0	8.5	6.5	4.5	2.5	---	---	---	---	8.0	4.5
7	12.0	8.0	9.0	6.5	6.5	4.5	---	---	---	---	7.5	6.0
8	12.5	8.0	9.5	7.5	5.0	4.0	---	---	---	---	7.0	4.0
9	13.0	8.5	9.5	7.5	5.0	4.0	---	---	---	---	7.5	4.5
10	12.5	9.0	9.0	6.5	4.0	2.0	---	---	---	---	6.5	3.0
11	12.5	9.5	8.5	6.0	4.5	3.0	---	---	---	---	6.5	2.5
12	11.5	8.0	7.0	5.0	3.5	1.5	---	---	---	---	6.0	4.0
13	12.0	7.5	6.5	4.0	3.5	2.0	---	---	---	---	6.0	2.5
14	11.5	7.5	5.0	3.0	3.0	1.0	---	---	---	---	7.0	2.5
15	10.5	6.5	7.0	4.5	3.5	1.0	---	---	---	---	7.0	3.0
16	10.5	6.5	9.5	7.0	4.0	2.0	---	---	7.5	---	7.0	3.5
17	9.5	6.5	9.0	7.0	3.5	1.0	---	---	7.5	4.0	7.0	3.5
18	8.5	5.0	9.0	7.5	3.5	1.0	---	---	8.5	5.0	7.5	4.0
19	8.5	4.5	7.0	5.5	2.5	1.0	---	---	7.5	3.5	6.5	5.0
20	9.0	5.0	6.0	3.5	2.0	0.5	---	---	6.5	3.0	7.5	3.5
21	8.5	5.0	6.5	5.0	4.0	2.0	---	---	5.0	4.0	8.0	4.5
22	9.0	6.0	7.5	6.0	4.5	3.0	---	---	7.5	4.0	11.0	5.0
23	9.0	6.0	6.0	4.0	5.0	3.0	---	---	6.5	3.5	8.5	5.5
24	8.5	6.5	6.5	4.0	3.5	1.5	---	---	6.5	3.5	7.5	4.5
25	8.5	7.5	6.5	4.0	4.5	3.0	---	---	5.5	3.5	9.0	3.5
26	10.0	7.5	3.5	2.5	5.0	4.5	---	---	6.0	3.0	8.0	5.0
27	8.5	5.0	2.0	0.5	5.5	3.5	---	---	7.0	4.5	7.0	3.5
28	8.5	5.0	3.5	1.0	3.5	1.0	---	---	6.5	5.0	6.0	3.0
29	9.0	6.0	5.5	4.0	3.0	1.0	---	---	---	---	6.5	4.0
30	9.0	7.0	4.5	2.0	3.0	1.0	---	---	---	---	10.0	4.0
31	9.0	6.5	---	---	2.0	1.0	---	---	---	---	7.0	5.5
MONTH	14.0	4.5	10.0	0.5	6.5	0.5	3.5	0.0	8.5	3.0	11.0	2.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	4.5	14.5	9.5	16.0	10.0	---	---	21.5	13.0	16.0	9.5
2	7.5	3.5	15.0	10.5	15.0	7.0	---	---	18.0	13.5	16.0	11.5
3	10.0	6.0	12.0	8.0	15.5	10.0	---	---	21.0	13.5	17.0	13.0
4	13.0	5.0	12.0	7.0	18.5	11.5	---	---	21.0	13.5	17.5	13.0
5	14.0	6.5	12.0	6.5	---	---	---	---	21.5	13.5	19.0	14.5
6	14.5	7.0	11.0	7.5	---	---	---	---	21.0	13.5	18.0	13.0
7	14.5	7.0	17.0	8.5	---	---	---	---	20.5	13.0	17.0	12.5
8	13.0	7.5	15.0	8.0	---	---	---	---	20.5	13.5	16.5	11.5
9	11.5	6.0	14.5	9.0	---	---	---	---	21.0	13.0	16.0	10.0
10	12.0	5.0	13.5	10.0	---	---	---	---	20.5	13.5	16.5	10.5
11	12.5	6.5	14.5	7.5	---	---	---	---	21.5	13.5	16.5	11.0
12	13.5	5.5	14.0	9.0	---	---	---	---	21.0	13.0	16.5	10.5
13	11.0	7.0	17.5	9.5	---	---	---	---	21.0	13.5	16.5	10.5
14	12.0	4.5	13.0	9.0	---	---	---	---	18.5	14.0	15.5	11.5
15	12.0	6.0	12.0	7.0	---	---	---	---	20.5	14.0	15.5	11.5
16	11.0	7.0	9.5	7.5	---	---	---	---	21.0	13.5	13.0	11.5
17	12.0	4.5	10.0	7.5	---	---	---	---	20.5	13.5	14.0	11.0
18	10.5	5.0	10.5	8.0	---	---	---	---	20.5	14.0	14.5	11.5
19	11.5	5.5	15.0	8.5	---	---	---	---	20.0	14.0	13.5	11.5
20	12.5	5.5	14.5	8.5	---	---	---	---	21.5	14.5	13.5	11.5
21	12.0	7.5	16.0	10.5	---	---	---	---	19.0	15.0	12.0	10.5
22	15.0	7.5	16.5	9.0	---	---	---	---	19.0	14.5	13.5	9.5
23	16.5	8.5	12.5	10.5	---	---	---	---	19.0	12.0	10.5	8.5
24	17.0	8.0	14.0	9.5	---	---	---	---	16.0	14.0	13.0	10.0
25	15.0	8.5	14.5	8.0	---	---	---	---	16.5	13.0	12.0	10.0
26	15.5	8.0	11.5	8.0	---	---	---	---	15.0	13.0	13.5	9.5
27	15.5	7.0	13.0	7.5	---	---	21.5	---	15.5	11.5	12.0	9.5
28	16.0	9.0	13.5	8.0	---	---	19.5	14.5	14.5	12.0	12.0	11.0
29	16.0	9.5	16.5	7.5	---	---	19.0	13.0	15.0	13.0	11.5	10.0
30	15.5	9.5	16.5	9.0	---	---	20.0	11.5	13.0	11.5	11.5	9.5
31	---	---	19.0	11.5	---	---	21.0	13.0	13.0	9.5	---	---
MONTH	17.0	3.5	19.0	6.5	18.5	7.0	21.5	11.5	21.5	9.5	19.0	8.5

13330000 LOSTINE RIVER NEAR LOSTINE, OR

LOCATION.--Lat 45°26'20", long 117°25'35", in NW¼ sec.34, T.1 S., R.43 E., Wallowa County, Hydrologic Unit 17060105, on left bank 3.5 mi (5.6 km) south of Lostine and at mile 10.0 (16.1 km).

DRAINAGE AREA.--70.9 mi² (183.6 km²).

PERIOD OF RECORD.--August 1912 to March 1914, April to September 1915, July 1925 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1397: 1913, 1942. WSP 1737: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 3,650 ft (1,110 m), by barometer. See WSP 1317 or 1737 for history of changes prior to Dec. 16, 1953.

REMARKS.--Records excellent except those for period January through March, which are poor. Minam Lake Reservoir, capacity, 440 acre-ft (0.54 hm³), has stored and diverted flow from Minam River since 1917 for irrigation in Lostine River basin. Diversions for irrigation above station.

AVERAGE DISCHARGE.--53 years (water years 1913, 1926-77), 195 ft³/s (5.522 m³/s), 141,300 acre-ft per/yr (174 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,550 ft³/s (72.2 m³/s) June 16, 1974, gage height, 7.55 ft (2.301 m); minimum, 7.5 ft³/s (0.21 m³/s) Mar. 2, 1966, result of freezeup; minimum daily, 10 ft³/s (0.28 m³/s) Nov. 28-30, 1936.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,100 ft³/s (31.2 m³/s) and maximum discharge, 1,230 ft³/s (34.8 m³/s) June 5, gage height, 5.09 ft (1.551 m); minimum, 14 ft³/s (0.40 m³/s) Nov. 27, but may have been less during period of no gage-height record.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	57	25	22	21	19	21	441	499	102	36	73
2	49	64	25	23	21	18	22	439	531	99	35	62
3	53	63	26	23	20	17	21	317	454	89	50	54
4	49	48	26	22	20	18	24	236	658	88	49	50
5	47	42	25	17	19	17	29	195	892	84	48	48
6	46	40	23	16	19	20	37	172	959	76	48	46
7	44	39	27	17	20	22	52	156	1000	70	49	43
8	43	37	29	18	21	22	91	144	983	68	46	40
9	41	37	30	19	22	23	75	146	662	65	44	38
10	40	36	28	22	23	22	63	179	508	64	42	36
11	39	36	28	22	23	23	71	164	426	61	40	36
12	39	36	26	23	22	20	79	152	413	60	38	34
13	38	32	24	23	20	22	93	188	400	59	36	33
14	36	32	21	23	18	21	83	238	374	55	35	31
15	36	34	20	24	17	26	88	186	350	53	34	32
16	36	49	22	24	18	24	108	167	340	51	32	37
17	36	51	20	23	18	21	106	149	317	51	30	39
18	34	47	19	23	19	20	109	148	300	54	28	36
19	34	43	18	23	18	19	109	137	284	54	26	38
20	35	37	17	23	19	22	111	138	257	49	26	68
21	35	38	19	22	19	24	121	149	238	47	25	65
22	35	38	23	22	18	24	137	171	223	47	25	60
23	33	35	23	20	17	22	208	247	202	47	24	54
24	33	35	20	21	17	21	317	238	183	48	32	58
25	36	36	23	21	17	22	405	202	167	53	40	60
26	35	26	26	20	17	21	410	208	156	50	49	59
27	53	16	26	20	18	20	371	198	141	46	47	58
28	59	17	20	19	19	22	374	186	127	43	41	135
29	58	27	22	18	---	20	403	172	120	41	67	246
30	55	26	21	19	---	25	416	172	109	39	107	169
31	53	---	18	20	---	23	---	263	---	37	93	---
TOTAL	1303	1154	720	652	540	660	4554	6298	12273	1850	1322	1838
MEAN	42.0	38.5	23.2	21.0	19.3	21.3	152	203	409	59.7	42.6	61.3
MAX	59	64	30	24	23	26	416	441	1000	102	107	246
MIN	33	16	17	16	17	17	21	137	109	37	24	31
AC-FT	2580	2290	1430	1290	1070	1310	9030	12490	24340	3670	2620	3650

CAL YR 1976 TOTAL 73711 MEAN 201 MAX 1150 MIN 16 AC-FT 146200
WTR YR 1977 TOTAL 33164 MEAN 90.9 MAX 1000 MIN 16 AC-FT 65780

NOTE.--No gage-height record Jan. 1 to Mar. 3.

13330200 LOSTINE RIVER AT LOSTINE, OR

LOCATION.--Lat 45°29'47", long 117°26'20", in NE¼ sec.9, T.1 S., R.43 E., Wallowa County, Hydrologic Unit 17060105, on right bank at upstream side of bridge on Oregon State Highway 82, 0.5 mi (0.8 km) northeast of Lostine, and at mile 31.3 (50.4 km).

DRAINAGE AREA.--Indeterminate.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1976 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 21.0°C July 20, 23, 1977; minimum, 0.0°C many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.0°C July 20, 23; minimum, 0.0°C many days during winter periods.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.0	9.5	8.0	6.5	1.0	0.0	0.5	0.0	0.0	0.0	5.5	1.5
2	13.0	10.0	8.5	7.0	1.0	0.0	0.5	0.5	0.5	0.0	5.0	2.0
3	10.5	8.0	7.5	6.5	1.0	0.0	0.5	0.5	1.0	0.0	5.0	2.0
4	10.5	6.0	7.5	4.5	1.5	0.5	1.0	0.0	0.5	0.0	7.5	1.5
5	10.0	6.5	7.5	4.0	1.0	0.0	0.0	0.0	1.0	0.0	7.5	1.0
6	12.5	8.5	7.0	4.0	1.0	0.0	0.0	0.0	3.0	1.0	6.5	2.5
7	11.5	6.5	7.0	4.0	2.5	1.0	0.0	0.0	2.5	0.0	6.0	4.0
8	11.5	7.0	8.0	5.0	2.5	1.0	0.0	0.0	2.0	0.5	5.5	1.5
9	12.5	7.5	8.0	5.5	2.5	0.5	0.0	0.0	3.5	1.5	7.0	2.0
10	12.0	8.0	7.5	4.0	1.5	0.0	0.0	0.0	4.0	1.5	5.0	0.5
11	12.0	8.5	7.0	3.5	1.5	0.0	0.0	0.0	4.5	2.0	5.0	0.0
12	11.0	7.0	5.5	2.5	0.5	0.0	0.0	0.0	4.5	3.0	4.5	1.5
13	11.0	6.5	3.5	1.0	1.0	0.0	0.0	0.0	5.0	2.5	4.5	0.0
14	10.5	6.5	2.0	0.5	0.5	0.0	0.0	0.0	5.0	1.0	5.5	0.0
15	9.5	6.0	4.5	1.0	0.5	0.0	0.0	0.0	4.5	1.0	5.0	0.0
16	9.0	5.5	6.5	4.5	1.0	0.0	2.0	0.0	5.0	1.5	6.0	1.0
17	8.5	5.0	7.0	4.5	0.5	0.0	3.0	2.0	5.0	1.5	7.0	1.5
18	7.5	3.5	7.0	4.5	0.5	0.0	3.0	2.0	6.5	2.5	7.0	1.5
19	7.5	3.5	5.0	2.5	0.0	0.0	3.0	1.5	5.5	1.0	5.5	2.5
20	7.5	3.5	4.0	1.0	0.0	0.0	2.0	0.5	5.0	1.0	7.5	0.5
21	7.0	3.5	4.0	2.0	0.5	0.0	2.0	0.5	3.0	1.5	7.5	2.0
22	8.0	4.0	5.5	3.0	1.0	0.5	2.5	1.0	5.5	1.0	11.0	3.0
23	7.5	4.0	4.0	1.0	1.5	0.5	2.5	0.0	5.5	1.0	6.5	3.5
24	7.0	4.0	4.0	1.0	1.0	0.0	0.0	0.0	5.5	1.0	6.5	2.5
25	6.5	5.5	4.5	0.5	2.0	0.5	1.0	0.0	3.5	1.0	8.5	2.5
26	7.5	5.0	1.0	0.0	2.5	2.0	1.0	0.0	4.5	0.5	7.5	4.0
27	6.5	3.0	0.0	0.0	3.0	1.0	0.0	0.0	5.5	2.0	6.0	2.5
28	6.0	2.5	0.0	0.0	1.0	0.0	0.0	0.0	6.0	2.5	5.0	1.0
29	6.5	3.5	1.0	0.0	0.5	0.0	0.0	0.0	---	---	5.0	2.5
30	8.0	4.5	1.5	0.0	0.0	0.0	0.0	0.0	---	---	9.0	2.5
31	7.0	4.5	---	---	0.0	0.0	0.0	0.0	---	---	6.5	3.5
MONTH	14.0	2.5	8.5	0.0	3.0	0.0	3.0	0.0	6.5	0.0	11.0	0.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	2.5	---	---	12.0	7.0	17.0	12.5	20.0	13.0	15.5	8.5
2	7.0	2.0	---	---	11.0	5.0	17.5	11.0	16.5	13.0	15.0	10.5
3	9.0	5.0	---	---	11.0	6.5	18.0	11.0	19.5	13.0	16.0	12.0
4	---	5.0	---	---	12.5	7.0	13.5	11.0	19.5	13.5	17.5	12.5
5	---	---	---	---	13.5	7.0	15.0	8.0	19.5	13.5	18.5	13.5
6	---	---	---	---	12.0	7.0	17.0	9.0	18.5	13.5	17.5	12.5
7	---	---	---	---	11.0	7.5	18.5	9.5	19.5	12.5	16.5	11.5
8	---	---	---	---	12.0	7.5	19.0	11.0	19.5	13.0	15.5	10.5
9	---	---	---	---	12.0	6.0	18.0	12.5	19.5	12.5	15.0	9.0
10	---	---	---	---	12.5	7.5	18.0	10.5	20.0	13.0	15.5	9.5
11	---	---	---	---	11.5	8.0	18.5	11.0	20.0	13.5	15.5	10.0
12	---	---	11.0	---	12.5	8.5	18.0	12.5	20.0	13.0	15.5	10.0
13	---	---	14.5	7.5	12.0	9.0	18.0	10.5	19.5	13.0	15.5	10.0
14	---	---	9.0	6.5	11.0	8.5	19.0	11.5	17.5	13.5	15.0	10.5
15	---	---	8.0	4.5	12.5	7.5	20.0	12.5	19.5	13.5	14.0	11.0
16	---	---	7.0	4.0	14.5	8.0	20.0	13.0	20.0	13.5	12.5	10.5
17	---	---	7.5	5.0	15.5	8.5	17.0	13.0	19.5	13.0	13.0	9.5
18	---	---	8.0	5.5	16.0	9.5	15.5	13.5	20.0	13.5	13.0	10.0
19	---	---	10.5	5.5	15.0	11.0	20.0	12.0	19.0	13.5	13.0	10.5
20	---	---	12.0	5.5	14.0	10.0	21.0	12.5	20.0	14.0	12.5	10.0
21	---	---	13.0	7.5	15.5	10.0	20.5	14.0	17.5	14.0	10.5	9.0
22	---	---	13.0	6.5	16.5	10.5	19.5	13.5	18.0	13.5	11.0	8.0
23	---	---	10.0	7.5	16.5	10.5	21.0	14.0	18.0	11.5	8.5	6.5
24	---	---	9.5	6.5	17.5	10.0	17.5	14.0	15.5	13.0	12.0	8.0
25	---	---	10.5	5.5	19.0	11.5	19.5	13.0	15.5	12.0	11.0	8.0
26	---	---	8.5	6.0	18.5	12.0	20.5	14.0	15.0	12.0	11.5	7.5
27	---	---	10.5	5.0	18.5	12.0	20.5	14.0	14.0	10.5	10.5	7.5
28	---	---	10.0	5.0	19.5	11.0	19.0	14.0	13.5	11.0	10.0	9.5
29	---	---	12.5	5.0	18.0	11.5	18.0	12.0	13.5	12.0	9.0	8.0
30	---	---	12.5	6.0	19.0	10.5	18.5	11.5	12.5	10.5	9.0	7.0
31	---	---	15.0	8.0	---	---	19.5	12.0	12.0	8.5	---	---
MONTH	9.0	2.0	15.0	4.0	19.5	5.0	21.0	8.0	20.0	8.5	18.5	6.5

13330500 BEAR CREEK NEAR WALLOWA, OR

LOCATION.--Lat 45°31'37", long 117°33'05", in [illegible] sec.34, T.1 N., R.42 E., Wallowa County, Hydrologic Unit 17060105, on right bank 30 ft (9 m) downstream from road bridge, 3.0 mi (4.8 km) southwest of Wallowa, and at mile 4.4 (7.1 km).

DRAINAGE AREA.--68 mi^2 (176 km^2), approximately.

PERIOD OF RECORD.--April to September 1915, April 1924 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1397: 1915, 1927, 1929-30, 1932, 1936-40, 1945, 1949.

GAGE.--Water-stage recorder. Altitude of gage is 3,250 ft (991 m), by barometer. Apr. 13 to Sept. 16, 1915, nonrecording gage at site 1.0 mi (1.6 km) upstream at different datum. Apr. 22, 1924, to Nov. 2, 1931, water-stage recorder at site 1.5 mi (2.4 km) upstream at different datum.

REMARKS.--Records good except those for December, January and February, which are fair. No regulation. Diversions for irrigation above station. Water for irrigation in Lostine River basin diverted from Little Bear Creek, a tributary above station, in sec.32, T.1 S., R.43 E.

AVERAGE DISCHARGE.--53 years (water years 1925-77), 113 ft^3/s (3.200 m^3/s), 81,870 acre-ft/yr (101 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,730 ft^3/s (49.0 m^3/s) June 15, 1974; maximum gage height, 3.82 ft (1.164 m) Apr. 22, 1936 (from floodmark); minimum daily discharge, 3 ft^3/s (0.085 m^3/s) Jan. 20, Feb. 1, 1937.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 600 ft^3/s (17.0 m^3/s) and maximum discharge, 653 ft^3/s (18.5 m^3/s) June 6, gage height, 2.72 ft (0.829 m); minimum, 4.9 ft^3/s (0.139 m^3/s) Dec. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	15	14	10	11	10	13	250	310	32	12	25
2	17	16	14	10	10	9.7	12	243	290	31	11	21
3	16	17	13	11	11	9.7	14	191	250	29	11	19
4	15	16	13	10	12	9.7	15	144	331	28	11	18
5	15	16	12	9.0	11	9.7	17	120	420	29	11	17
6	15	16	13	9.4	10	10	25	105	460	27	11	15
7	15	16	13	10	9.6	11	58	94	466	24	12	14
8	14	16	14	10	9.4	12	92	92	466	22	11	14
9	14	15	14	11	9.2	13	96	94	310	21	10	13
10	14	15	14	9.0	9.2	11	94	109	243	20	10	13
11	14	15	13	10	10	11	90	105	205	19	10	12
12	14	15	12	12	11	10	96	102	191	18	9.7	12
13	14	14	12	13	10	10	109	120	191	17	9.4	12
14	13	18	12	15	9.6	10	92	144	171	17	9.4	12
15	13	16	11	16	9.4	11	90	116	153	16	9.4	12
16	13	16	10	15	9.7	11	105	107	139	15	9.1	12
17	13	19	9.2	13	9.7	10	90	96	125	15	8.8	13
18	13	20	11	12	9.7	11	86	96	113	16	8.8	12
19	13	18	12	11	9.7	11	81	92	105	17	8.6	13
20	13	17	13	10	9.7	11	77	98	94	15	8.6	16
21	13	16	13	11	10	11	83	118	85	14	8.6	16
22	13	16	13	11	9.4	12	94	144	76	14	8.6	16
23	12	16	12	10	9.4	12	147	194	67	14	8.6	17
24	12	15	12	10	9.4	12	208	191	60	14	11	20
25	14	12	11	10	9.4	12	246	165	54	15	13	22
26	13	9.8	11	9.1	9.4	12	239	165	50	14	16	24
27	13	8.2	10	10	9.7	14	201	156	45	14	13	24
28	13	9.4	9.2	10	11	12	201	147	40	13	12	44
29	13	12	10	11	---	12	218	139	37	12	16	85
30	13	13	10	10	---	12	232	141	35	12	25	71
31	13	---	11	8.8	---	12	---	191	---	12	31	---
TOTAL	424	453.4	371.4	337.3	278.6	344.8	3221	4269	5582	576	364.6	634
MEAN	13.7	15.1	12.0	10.9	9.95	11.1	107	138	186	18.6	11.8	21.1
MAX	17	20	14	16	12	14	246	250	466	32	31	85
MIN	12	8.2	9.2	8.8	9.2	9.7	12	92	35	12	8.6	12
AC-FT	841	899	737	669	553	684	6390	8470	11070	1140	723	1260

CAL YR 1976 TOTAL 42545.8 MEAN 116 MAX 629 MIN 8.2 AC-FT 84390
WTR YR 1977 TOTAL 16856.1 MEAN 46.2 MAX 466 MIN 8.2 AC-FT 33430

13331500 MINAM RIVER AT MINAM, OR
(Hydrologic bench-mark station)

LOCATION.--Lat 45°37'12", long 117°43'32", in SW¼SW¼ sec.29, T.2 N., R.41 E., Wallowa County, Hydrologic Unit 17060105, on left bank 2.3 mi (3.7 km) downstream from Squaw Creek, 0.3 mi (0.5 km) west of Minam, and at mile 0.3 (0.5 km).

DRAINAGE AREA.--240 mi^2 (622 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1912 to March 1914, September 1965 to current year. Monthly discharge only for some periods, published in WSP 1317.

GAGE.--Water-stage recorder. Datum of gage is 2,540.48 ft (774.338 m) above mean sea level. June 1912 to March 1914, nonrecording gage at approximately same site at different datum.

REMARKS.--Water-discharge records good except those for winter periods and no gage-height record, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--13 years, 473 ft^3/s (13.40 m^3/s), 26.76 in/yr (680 mm/yr), 342,700 acre-ft/yr (423 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,260 ft^3/s (177 m^3/s) June 16, 1974, gage height, 6.89 ft (2.100 m); maximum gage height, 7.3 ft (2.23 m) May 28, 1913, datum then in use; minimum discharge, 10 ft^3/s (0.28 m^3/s) Dec. 6, 1972, Jan. 10, 1973, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,450 ft^3/s (41.1 m^3/s) and maximum discharge, 2,140 ft^3/s (60.6 m^3/s) June 8, gage height, 4.08 ft (1.244 m); minimum, 28 ft^3/s (0.79 m^3/s) Nov. 28, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	84	50	64	64	62	74	880	886	199	73	118
2	90	96	54	64	62	62	76	860	964	196	71	100
3	111	109	52	70	60	63	82	560	839	187	71	90
4	96	92	52	64	58	63	90	450	964	181	70	82
5	92	86	50	58	56	62	100	400	1280	184	66	76
6	88	82	54	50	54	63	160	370	1510	169	66	71
7	84	80	94	51	56	65	220	340	1650	161	71	68
8	82	78	86	54	54	66	320	320	1700	153	68	65
9	80	78	76	60	58	75	340	350	1220	145	65	63
10	78	78	71	54	62	68	320	370	985	140	63	62
11	76	76	68	56	54	73	300	360	852	135	62	60
12	76	75	64	66	46	66	320	350	780	130	60	59
13	75	73	64	70	48	66	350	392	736	125	59	57
14	73	66	64	80	50	62	310	457	687	120	57	56
15	71	80	58	90	54	60	300	401	628	116	57	56
16	70	86	54	80	56	65	350	387	583	111	56	60
17	70	113	49	70	58	63	320	357	534	106	54	66
18	68	96	56	60	60	59	310	374	497	109	53	65
19	66	92	64	54	58	62	290	361	462	116	52	65
20	66	84	70	52	58	60	280	396	447	104	52	106
21	66	78	72	48	60	63	300	428	405	98	52	111
22	68	80	70	46	58	65	350	462	374	94	52	98
23	68	78	68	47	60	70	520	617	340	94	52	88
24	68	78	66	48	58	73	760	681	315	94	57	94
25	73	75	66	56	56	71	860	594	295	102	94	100
26	82	68	64	50	56	73	800	605	271	96	106	104
27	76	46	64	54	57	76	700	594	253	94	120	94
28	76	42	60	56	62	76	740	594	235	84	90	111
29	76	58	62	62	---	72	780	566	225	80	104	249
30	76	54	64	58	---	74	840	561	212	78	132	212
31	75	---	70	56	---	70	---	572	---	76	175	---
TOTAL	2398	2361	1976	1848	1593	2068	11562	15009	21129	3877	2280	2706
MEAN	77.4	78.7	63.7	59.6	56.9	66.7	385	484	704	125	73.5	90.2
MAX	111	113	94	90	64	76	860	880	1700	199	175	249
MIN	66	42	49	46	46	59	74	320	212	76	52	56
CFSM	.32	.33	.27	.25	.24	.28	1.60	2.02	2.93	.52	.31	.38
IN.	.37	.37	.31	.29	.25	.32	1.74	2.33	3.27	.60	.35	.42
AC-FT	4760	4680	3920	3670	3160	4100	22930	29770	41910	7690	4520	5370

CAL YR 1976 TOTAL 174924 MEAN 478 MAX 2250 MIN 42 CFSM 1.99 IN 27.11 AC-FT 347000
WTR YR 1977 TOTAL 68807 MEAN 189 MAX 1700 MIN 42 CFSM .79 IN 10.67 AC-FT 136500

NOTE.--No gage-height record Mar. 28 to May 12.

13331500 MINAM RIVER AT MINAM, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1965 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 27.0°C July 23, 27, 1977; minimum, 0.0°C on many days during winter periods each year.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.0°C July 23, 27; minimum, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	DISSOLVED OXYGEN (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)
NOV										
02...	1000	104	8.1	7.3	12.1	49	B5	B17	17	10
DEC										
08...	1030	80	.5	7.6	13.2	52	B1	B8	19	10
27...	1100	80	.5	7.1	14.3	52	<1	B12	18	10
JAN										
31...	1010	60	.1	6.8	14.5	56	B6	<1	21	30
MAR										
01...	0900	63	.3	7.5	13.9	53	<1	B3	18	20
28...	1200	72	3.0	7.4	13.0	55	--	B230	20	40
APR										
25...	1130	681	6.6	7.4	11.5	31	B2	B4	11	40
JUN										
06...	1115	1380	10.1	--	10.7	25	B9	24	8.8	50
28...	1130	212	20.0	7.4	9.9	34	B3	52	--	--
JUL										
26...	0930	95	18.7	7.7	9.3	48	B12	--	16	0
AUG										
03...	1805	71	25.2	8.3	7.3	50	B15	--	17	40
30...	1045	92	13.5	7.3	10.8	47	--	B1	15	20
SEP										
12...	1330	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)
NOV										
02...	6.1	1.6	2.2	1.0	34	0	2.6	1.1	.1	.01
DEC										
08...	6.9	1.7	2.6	.9	26	0	5.8	.6	.0	.09
27...	6.5	1.6	2.4	.9	35	0	2.7	.6	.1	.02
JAN										
31...	7.5	1.7	2.8	1.0	36	0	4.4	.5	.1	.11
MAR										
01...	6.4	1.8	5.4	1.8	32	0	2.9	.5	.1	.01
28...	6.3	1.8	2.5	1.0	33	0	3.4	1.7	.0	.05
APR										
25...	3.8	.6	1.4	.8	17	0	2.8	.4	.1	.08
JUN										
06...	4.5	.3	1.0	.6	12	--	3.0	.3	.0	.00
28...	--	--	--	--	--	--	--	--	--	--
JUL										
26...	7.3	1.6	2.4	1.2	29	0	2.2	.3	.1	--
AUG										
03...	6.5	1.3	2.5	1.5	31	--	1.0	.5	.1	--
30...	7.0	1.3	2.3	1.2	28	0	1.2	.4	.0	--
SEP										
12...	--	--	--	--	--	--	--	--	--	.01

B: RESULTS BASED ON NON-IDEAL COLONY COUNT

13331500 MINAM RIVER AT MINAM, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL PHOS-PHORUS (P) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
NOV									
02...	.01	22	0	.2	49	13.8	.07	3	.04
DEC									
08...	.00	24	3	.2	51	11.0	.07	8	1.7
27...	.01	23	0	.2	50	10.8	.07	0	.00
JAN									
31...	.03	26	0	.2	57	9.23	.08	--	--
MAR									
01...	--	23	0	.5	53	9.14	.07	2	.35
28...	.00	23	0	.2	53	10.4	.07	3	.59
APR									
25...	.03	12	0	.2	30	55.2	.04	41	75
JUN									
06...	.02	12	3	.1	24	89.4	.03	12	45
28...	--	--	--	--	--	--	--	4	2.3
JUL									
26...	.01	25	1	.2	45	11.6	.06	2	.52
AUG									
03...	.02	22	0	.2	46	8.82	.06	--	--
30...	.02	23	0	.2	42	10.4	.06	5	1.2
SEP									
12...	.01	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BARIUM (BA) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)
APR							
25...	0	0	0	0	0	2	40

DATE	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)
APR						
25...	2	1	0	10	30	.0

13331500 MINAM RIVER AT MINAM, OR--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.5	10.0	9.5	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
2	14.5	11.0	9.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	11.5	9.0	9.5	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	12.0	6.0	9.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
5	11.0	6.0	8.5	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
6	14.0	8.0	7.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
7	13.0	6.0	6.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
8	12.0	6.0	8.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
9	13.5	6.5	8.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
10	13.5	8.0	7.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
11	14.0	8.5	6.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
12	12.0	6.5	5.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
13	12.0	5.5	5.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
14	11.5	5.5	4.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
15	10.5	4.5	4.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
16	10.0	4.5	6.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
17	9.5	4.0	7.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
18	8.5	3.0	7.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.5
19	7.0	3.0	5.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	3.5	1.5
20	7.0	3.0	4.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.5
21	7.0	3.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	1.5
22	8.5	3.0	5.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	2.0
23	8.0	3.5	3.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	4.0	1.5
24	7.0	4.0	2.5	1.5	0.0	0.0	0.0	0.0	0.5	0.0	6.0	0.5
25	8.0	6.0	4.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0
26	8.5	4.5	3.5	1.5	0.0	0.0	0.0	0.0	0.5	0.0	5.0	1.5
27	8.5	3.5	5.0	2.5	0.0	0.0	0.0	0.0	0.5	0.0	4.0	1.0
28	8.0	3.5	3.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
29	8.0	4.0	2.5	0.0	0.0	0.0	0.0	0.0	---	---	5.0	1.0
30	9.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	---	---	9.0	0.0
31	7.0	4.5	---	---	0.0	0.0	0.0	0.0	---	---	3.5	1.0
MONTH	15.5	3.0	9.5	0.0	0.0	0.0	0.0	0.0	0.5	0.0	9.0	0.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.0	1.5	9.0	6.5	12.0	9.0	21.0	14.5	26.0	15.5	18.0	9.0
2	6.5	0.5	8.0	7.0	10.5	6.5	20.5	13.0	21.5	16.5	19.5	11.5
3	10.0	3.0	7.0	5.0	10.0	7.5	20.0	13.0	25.0	16.5	21.5	14.0
4	13.0	2.0	6.5	3.5	13.5	9.0	15.5	11.0	25.0	16.5	24.5	15.5
5	12.5	2.5	8.0	3.5	14.0	8.5	15.5	8.5	25.5	17.0	24.5	17.5
6	11.0	2.0	6.5	4.0	13.0	9.0	19.5	9.0	22.5	16.0	24.0	15.5
7	10.5	2.0	10.0	4.5	13.5	9.5	21.0	10.0	24.5	16.5	22.0	14.0
8	5.5	2.0	11.5	5.5	12.5	8.5	22.5	12.0	24.0	16.0	20.5	13.0
9	8.0	2.5	11.0	6.5	12.0	8.0	21.5	15.0	23.5	15.5	18.0	10.5
10	9.5	2.5	11.5	7.5	12.5	9.5	22.0	12.5	21.5	16.0	17.0	10.0
11	9.0	4.0	10.5	6.0	13.0	9.5	23.5	13.5	24.0	16.5	18.0	11.0
12	10.5	3.0	10.0	7.0	15.0	9.0	22.0	15.5	24.0	15.5	17.0	11.0
13	8.0	4.5	14.0	7.0	12.5	10.5	22.5	13.0	24.0	16.0	16.5	10.5
14	10.0	3.0	10.5	7.0	14.0	9.5	24.0	13.0	21.5	17.0	15.5	11.5
15	9.5	3.5	9.0	5.5	14.5	9.0	25.0	14.5	23.5	16.5	15.0	11.5
16	9.0	4.0	7.0	5.5	16.0	10.0	25.0	15.5	24.0	16.5	14.5	11.5
17	9.5	2.0	6.5	5.0	17.0	10.0	20.5	17.0	23.5	16.5	14.5	10.0
18	8.0	2.5	7.0	5.0	18.0	11.0	19.0	16.0	23.5	16.5	14.5	11.0
19	8.5	3.0	11.5	5.0	17.0	12.5	23.5	14.0	23.0	17.0	13.0	11.0
20	9.0	3.0	11.5	5.5	16.0	10.5	25.5	15.0	24.0	18.0	14.5	11.0
21	9.0	5.5	11.5	7.5	19.5	12.5	26.0	17.5	23.5	18.5	12.0	9.0
22	13.0	5.0	13.5	7.0	19.5	13.0	25.5	16.0	24.5	18.0	13.5	7.0
23	12.0	5.5	10.5	7.5	20.0	13.0	27.0	17.5	20.0	14.0	9.0	6.5
24	11.5	5.5	10.0	6.0	20.5	12.5	21.5	18.0	20.5	16.5	12.5	8.0
25	9.5	5.5	10.5	5.5	21.5	14.5	25.0	16.0	18.5	15.0	11.5	8.0
26	10.0	5.5	7.5	5.5	19.5	14.0	26.0	17.5	16.5	14.0	14.5	8.0
27	10.0	4.5	8.5	4.0	21.0	14.0	27.0	17.0	17.0	12.0	11.5	8.0
28	11.0	5.5	8.5	5.0	21.5	12.5	24.5	17.5	15.0	12.5	12.0	10.0
29	10.5	7.0	11.5	4.5	21.0	14.0	23.5	14.5	15.5	13.5	11.5	9.5
30	10.0	6.5	11.5	6.0	22.0	12.5	25.0	13.5	14.5	11.5	10.5	8.0
31	---	---	14.0	8.0	---	---	25.0	14.5	13.5	9.5	---	---
MONTH	13.0	0.5	14.0	3.5	22.0	6.5	27.0	8.5	26.0	9.5	24.5	6.5

13332500 GRANDE RONDE RIVER AT RONDOWA, OR

LOCATION.--Lat 45°43'36", long 117°46'59", in SW¼NW¼ sec.23, T.3 N., R.40 E., Wallowa County, Hydrologic Unit 17060106, on right bank at Rondowa, 500 ft (152 m) downstream from Wallowa River, 13 mi (21 km) northeast of Elgin, and at mile 81.4 (131.0 km).

DRAINAGE AREA.--2,555 mi² (6,617 km²).

PERIOD OF RECORD.--October 1926 to current year.

REVISED RECORDS.--WSP 1093: 1928-29, 1932-33, 1936, 1938, 1939(M), 1943. WSP 1397: 1927. WSP 1447: 1927.

GAGE.--Water-stage recorder. Datum of gage is 2,281.87 ft (695.514 m) above mean sea level.

REMARKS.--Records excellent. Flow slightly regulated by Wallowa Lake (see station 13326000) and small reservoirs. Diversions for irrigation above station, chiefly in vicinity of La Grande, Enterprise, and Wallowa; one transbasin diversion from Sheep Creek in Imnaha River basin for irrigation in Wallowa Valley.

AVERAGE DISCHARGE.--51 years, 2,134 ft³/s (60.43 m³/s), 1,546,000 acre-ft/yr (1.91 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,700 ft³/s (700 m³/s) Jan. 30, 1965, gage height, 10.93 ft (3.331 m); minimum, 179 ft³/s (5.07 m³/s) Aug. 24, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,940 ft³/s (140 m³/s) June 8, gage height, 4.34 ft (1.323 m), no peak above base of 6,200 ft³/s (176 m³/s); minimum, 179 ft³/s (5.07 m³/s) Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	579	636	425	445	455	548	801	2430	2830	475	252	587
2	604	678	440	470	450	534	866	2510	3190	440	241	540
3	661	695	470	475	440	540	885	2370	2730	415	245	516
4	661	670	534	465	430	548	951	2070	2760	435	241	492
5	653	645	480	425	430	534	1230	1840	3600	504	249	480
6	645	620	465	320	440	534	1600	1690	3830	486	241	475
7	653	595	548	340	435	556	2120	1570	4000	465	260	440
8	653	587	548	340	440	595	2880	1500	4280	445	256	430
9	636	595	548	360	450	678	3030	1530	3420	420	260	420
10	653	595	522	405	475	653	2700	1620	2800	390	252	410
11	628	587	510	480	556	604	2420	1640	2400	385	260	395
12	636	579	450	475	595	595	2230	1570	2220	375	256	351
13	620	571	440	492	612	587	2250	1670	2150	351	245	356
14	620	571	425	492	579	556	2150	1860	2000	330	249	338
15	604	579	440	498	540	540	1970	1770	1880	317	252	321
16	595	595	475	516	522	534	1970	1780	1780	296	237	330
17	587	661	470	522	516	540	1880	1740	1600	275	215	385
18	587	645	460	492	498	548	1730	1860	1450	287	197	400
19	595	645	435	498	486	579	1580	1840	1300	291	186	425
20	595	628	425	498	480	587	1470	1800	1250	283	193	516
21	595	612	455	486	522	579	1450	1820	1100	275	201	620
22	587	595	460	486	534	587	1450	1880	990	260	204	579
23	604	579	498	480	504	636	1690	2120	875	260	193	540
24	612	571	465	445	492	678	2120	2400	801	252	204	612
25	620	571	480	450	498	678	2650	2220	730	275	271	620
26	636	556	498	465	492	670	2810	2250	670	308	343	661
27	620	460	534	425	492	739	2570	2430	636	300	380	628
28	628	410	498	425	522	765	2380	2400	587	279	334	730
29	620	460	460	410	---	739	2400	2320	540	279	375	1240
30	604	435	445	400	---	721	2370	2230	504	268	522	1150
31	604	---	415	420	---	747	---	2200	---	264	730	---
TOTAL	19195	17626	14718	13900	13885	18929	58603	60930	58903	10685	8544	15987
MEAN	619	588	475	448	496	611	1953	1965	1963	345	276	533
MAX	661	695	548	522	612	765	3030	2510	4280	504	730	1240
MIN	579	410	415	320	430	534	801	1500	504	252	186	321
AC-FT	38070	34960	29190	27570	27540	37550	116200	120900	116800	21190	16950	31710

CAL YR 1976 TOTAL 940016 MEAN 2568 MAX 11800 MIN 410 AC-FT 1865000
WTR YR 1977 TOTAL 311985 MEAN 855 MAX 4280 MIN 186 AC-FT 618700

13333000 GRANDE RONDE RIVER AT TROY, OR

LOCATION.--Lat 45°56'47", long 117°26'54", in NE¼NW¼ sec.4, T.5 N., R.43 E., Wallowa County, Hydrologic Unit 17060106, on left bank 500 ft (152 m) downstream from bridge at Troy, 600 ft (183 m) downstream from Wenaha River, and at mile 45.2 (72.7 km).

DRAINAGE AREA.--3,275 mi^2 (8,482 km^2).

PERIOD OF RECORD.--August 1944 to current year. Monthly discharge only August 1944, published in WSP 1317.

REVISED RECORDS.--WSP 1397: 1946(M), 1948-50.

GAGE.--Water-stage recorder. Datum of gage is 1,585.98 ft (483.407 m) above mean sea level. Aug. 17, 1944, to Sept. 30, 1949, nonrecording gage at site 500 ft (152 m) upstream at datum 10.85 ft (3.307 m) lower. Oct. 1, 1949, to Sept. 5, 1963, water-stage recorder at site 500 ft (152 m) upstream at datum 1.15 ft (0.351 m) higher.

REMARKS.--Records excellent. Flow slightly regulated by Wallowa Lake (see sta 13326000) and small reservoirs. Diversions for irrigation above station, chiefly in vicinity of La Grande, Enterprise, and Wallowa; one transbasin diversion from Big Sheep and tributaries in Imnaha River basin for irrigation in Wallowa Valley.

AVERAGE DISCHARGE.--33 years, 3,117 ft^3/s (88.3 m^3/s), 2,258,000 acre-ft/yr (2.78 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,200 ft^3/s (1,200 m^3/s) Dec. 23, 1964, gage height, 11.25 ft (3.429 m); minimum, 344 ft^3/s (9.74 m^3/s) Aug. 19-21, 23, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,420 ft^3/s (153 m^3/s) June 8, gage height, 5.19 ft (1.582 m), no peak above base of 9,000 ft^3/s (255 m^3/s); minimum, 344 ft^3/s (9.74 m^3/s) Aug. 19-21, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	780	920	676	651	877	807	1150	2930	3000	676	428	835
2	793	920	676	640	821	793	1180	2980	3540	626	409	740
3	849	920	701	640	793	793	1210	2980	3150	602	409	714
4	877	920	767	640	793	780	1270	2720	3030	602	409	676
5	877	877	727	620	767	767	1590	2350	3870	663	409	651
6	863	849	688	614	767	767	2210	2150	4240	688	418	638
7	849	835	767	651	740	821	2980	1980	4450	651	418	602
8	877	821	793	651	740	877	3960	1860	4750	626	428	579
9	849	821	780	701	727	982	4130	1940	4100	602	428	567
10	863	835	753	753	714	997	3710	2000	3260	579	418	567
11	849	835	740	800	780	905	3260	2070	2810	545	418	556
12	835	821	701	840	849	877	2980	1980	2580	545	418	533
13	835	807	638	880	863	863	2960	2020	2440	533	418	511
14	821	807	651	930	835	835	2830	2190	2330	511	409	501
15	807	821	651	951	780	793	2580	2170	2190	490	409	490
16	793	863	676	951	753	780	2530	2110	2070	469	409	479
17	780	891	701	920	753	780	2460	2130	1900	448	390	522
18	780	935	740	891	740	793	2260	2210	1720	459	371	567
19	780	905	701	891	727	835	2070	2280	1540	469	353	579
20	780	877	688	863	714	849	1920	2170	1480	459	344	626
21	793	863	793	835	753	835	1860	2170	1360	448	362	793
22	807	849	753	793	793	849	1860	2210	1210	428	362	780
23	807	835	767	780	767	905	2110	2350	1110	428	362	740
24	821	821	753	753	727	951	2580	2790	997	428	371	807
25	877	821	714	727	727	966	3150	2620	935	438	399	821
26	905	793	753	780	740	951	3440	2550	877	459	522	835
27	849	727	767	753	714	1060	3210	2830	835	490	590	835
28	849	701	740	701	767	1130	2960	2790	793	448	545	877
29	849	676	688	676	---	1080	2910	2720	740	448	556	1280
30	835	701	701	676	---	1050	2910	2620	714	438	767	1470
31	835	---	688	780	---	1060	---	2530	---	428	951	---
TOTAL	25764	25067	22332	23732	21521	27531	76230	73400	68021	16124	13900	21171
MEAN	831	836	720	766	769	888	2541	2368	2267	520	448	706
MAX	905	935	793	951	877	1130	4130	2980	4750	688	951	1470
MIN	780	676	638	614	714	767	1150	1860	714	428	344	479
AC-FT	51100	49720	44300	47070	42690	54610	151200	145600	134900	31980	27570	41990

CAL YR 1976 TOTAL 1269727 MEAN 3469 MAX 16900 MIN 638 AC-FT 2519000
WTR YR 1977 TOTAL 414793 MEAN 1136 MAX 4750 MIN 344 AC-FT 822700

13353000 SNAKE RIVER BELOW ICE HARBOR DAM, WA

LOCATION.--Lat 46°14'53", long 118°52'43", in NE¼SW¼, sec.24, T.9 N., R.31 E., Walla Walla County, Hydrologic Unit 17060110, in powerhouse forebay pier P-1 on south side of Bay 1 at Ice Harbor Dam, 8.0 mi (12.9 km) northeast of Burbank, and at mile 9.7 (15.6 km).

DRAINAGE AREA.--108,500 mi² (281,000 km²), approximately.

PERIOD OF RECORD.--October 1907 to March 1917 (gage heights only October 1907 to August 1909), March 1962 to current year. Published as "at Burbank" prior to 1911 and as "near Burbank" 1912-17. Chemical analyses October 1965 to September 1969, October 1971 to September 1972. For records collected at site 7.5 mi (12.1 km) downstream see station 13353200.

REVISED RECORDS.--WSP 1317: Drainage area.

GAGE.--Watt-hour meters on each turbine in Ice Harbor Dam powerhouse. Elevations are at mean sea level datum. Oct. 2, 1907, to Mar. 31, 1917, nonrecording gage at site approximately 2 mi (3.2 km) downstream at datum 300 ft (91 m) higher. Mar. 23, 1962, to Sept. 30, 1968, water-stage recorder 1.0 mi (1.6 km) downstream at mean sea level datum.

REMARKS.--Records computed from power output, flow over spillway, flow through fish ladder, and lockage records at Ice Harbor Dam. Diversions above station for irrigation of over 4,090,000 acres (16,600 km²). Flow regulated by Lake Sacajawea and many storage reservoirs and powerplants upstream.

COOPERATION.--Records furnished by Corps of Engineers. Records not reviewed but three discharge measurements made by the Geological Survey to verify turbine and spillway ratings.

AVERAGE DISCHARGE.--22 years (water years 1910-16, 1963-77) 56,450 ft³/s (1,599 m³/s), 40,900,000 acre-ft/yr (50,400 hm³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 312,000 ft³/s (8,840 m³/s) June 19, 1974; no flow momentarily Aug. 27, 1965 (result of testing at Ice Harbor Dam).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1948, reached an elevation of 361.9 ft (110.31 m) at a site 0.7 mi (1.1 km) downstream from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 95,300 ft³/s (2,700 m³/s) May 3; maximum forebay elevation, 440.04 ft (134.12 m) Jan. 31; minimum discharge, 100 ft³/s (2.83 m³/s) part of each day Feb. 16, 19, 20, 23, 26, 27, Mar. 4-6, 8-20, 22-24; minimum forebay elevation, 436.71 ft (133.11 m) June 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35900	28600	35000	10900	26200	20800	22200	52300	41200	29900	21100	14100
2	25000	31100	38500	22600	37400	34800	15100	54200	42400	22100	21500	18300
3	24100	23100	38900	39600	38700	24000	9300	47400	58000	23500	27500	17400
4	35200	27600	35100	34400	31900	38300	27700	60200	37100	19900	11800	8500
5	36800	29400	32300	42800	11200	16400	23700	55300	39600	24800	7300	14100
6	32600	32500	32300	39800	20600	12900	18600	44500	48700	17700	6400	34400
7	30300	30900	30400	38000	34900	39700	26800	23200	57200	24700	6400	8900
8	26500	34300	43100	28500	29900	16800	23200	11700	61900	20700	19900	13700
9	13900	26500	32100	11100	33000	28100	21000	47100	57300	3900	16300	11800
10	30600	26800	41100	34500	25700	19300	37500	39600	43400	6800	7900	7700
11	34300	31200	30500	28500	24400	29400	39500	33900	45500	48300	11700	6300
12	32100	27000	34300	30200	11600	26100	34300	38500	25900	20800	9000	12100
13	37600	23900	37600	25900	15400	18300	29900	38500	41700	22500	7200	14600
14	32900	24300	35400	32200	30200	29000	40800	19800	48600	26900	6400	17100
15	32900	31600	42700	25600	23700	29200	30100	41400	43600	20900	15600	17500
16	30700	28200	33500	24200	18000	25900	20700	43600	50200	8000	14900	27500
17	17400	25900	31000	33800	20800	16600	15100	36200	27000	7900	18700	8000
18	43600	30700	8500	27100	21000	18100	38900	24900	21900	21500	20800	6500
19	31200	29900	8400	39600	26100	25400	34900	34800	15300	24100	21700	15800
20	36700	26100	38400	32200	21200	13200	24500	22700	35500	18900	6400	6300
21	35300	32500	37200	34500	21000	36200	25200	35500	28600	19800	6900	12200
22	29900	32000	33900	20700	29500	22900	18100	31000	23800	16900	27100	14300
23	16400	31100	27800	20000	20100	24700	13600	43800	39300	9400	21700	20000
24	10800	33200	27800	32400	17500	20100	22200	41000	36600	10700	13400	11800
25	19400	33200	23100	38300	33900	18800	42300	49900	23600	21900	17100	13900
26	25500	34600	20800	36500	13000	7100	50000	52300	13300	20100	14700	26500
27	27400	35000	31200	32700	15200	8200	53100	51000	34900	15300	11200	28400
28	34900	35000	36100	32400	29900	31000	44500	33900	30800	10700	6800	25400
29	34300	34900	36800	32100	---	26400	47700	39700	30500	19100	18900	25600
30	24600	32500	30900	18400	---	28400	49700	32100	29400	10000	7000	22300
31	14300	---	30500	27600	---	29300	---	54500	---	3300	12200	---
TOTAL	893100	903600	995200	927100	682000	735400	900200	1234500	1132800	571000	435500	481000
MEAN	28810	30120	32100	29910	24360	23720	30010	39820	37760	18420	14050	16030
MAX	43600	35000	43100	42800	38700	39700	53100	60200	61900	48300	27500	34400
MIN	10800	23100	8400	10900	11200	7100	9300	11700	13300	3300	6400	6300
AC-FT	1771000	1792000	1974000	1839000	1353000	1459000	1786000	2449000	2247000	1133000	863800	954100

CAL YR 1976 TOTAL 23319700 MEAN 63720 MAX 191000 MIN 8100 AC-FT 46250000
WTR YR 1977 TOTAL 9891400 MEAN 27100 MAX 61900 MIN 3300 AC-FT 19620000

WALLA WALLA RIVER BASIN

14010000 SOUTH FORK WALLA WALLA RIVER NEAR MILTON, OR

LOCATION.--Lat 45°49'48", long 118°10'08", in NE¼NE¼ sec.15, T.4 N., R.37 E., Umatilla County, Hydrologic Unit 17070102, on right bank 1.0 mi (1.6 km) downstream from Elbow Creek, 13 mi (21 km) southeast of Milton, and at mile 59.1 (95.1 km).

DRAINAGE AREA.--63 mi² (163 km²), approximately.

PERIOD OF RECORD.--February to October 1903, August 1906 to November 1917, May 1931 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as "12 mi (19 km) above Milton" 1903 and as "above Pacific Power & Light Co.'s intake near Milton" 1907-10.

REVISED RECORDS.--WSP 964: Drainage area. WSP 1398: 1912, 1940, drainage area at former site.

GAGE.--Water-stage recorder. Altitude of gage is 2,050 ft (625 m) from river-profile map. Prior to Mar. 23, 1934, water-stage recorder or nonrecording gage at several sites within 1.5 mi (2.4 km) of present site at various datums.

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--56 years (water years 1908-17, 1932-77), 178 ft³/s (5.041 m³/s), 38.37 in/yr (975 mm/yr), 129,000 acre-ft/yr (159 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,530 ft³/s (71.6 m³/s) Jan. 29, 1965, gage height, 5.60 ft (1.707 m); minimum, 72 ft³/s (2.04 m³/s) Feb. 14, 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage about 6 ft (2 m) Mar. 31, 1931, present site and datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 530 ft³/s (15.0 m³/s) Apr. 8, gage height, 2.67 ft (0.814 m), no peak above base of 600 ft³/s (17.0 m³/s); minimum, 108 ft³/s (3.06 m³/s) July 11-13, 16, 17, 20-23, Aug. 18, 20-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	145	125	140	118	155	209	244	161	115	112	127
2	137	142	125	140	116	151	203	270	159	115	112	122
3	132	140	125	140	115	152	197	262	155	115	112	120
4	132	137	125	140	115	148	221	237	152	117	112	117
5	132	137	125	138	118	148	289	220	150	115	115	115
6	132	135	125	138	115	157	360	208	147	115	115	115
7	130	135	134	138	115	178	433	197	147	112	115	112
8	130	135	131	135	118	203	424	197	147	112	115	112
9	130	130	129	135	118	235	341	204	137	112	112	112
10	127	127	127	135	122	215	299	202	137	110	112	112
11	127	125	127	135	122	188	276	197	135	110	115	112
12	127	125	127	138	128	175	270	194	135	110	112	112
13	130	125	127	140	135	167	280	190	132	110	112	112
14	130	125	125	138	132	162	259	186	132	112	112	110
15	130	131	125	138	130	157	244	178	130	110	112	110
16	130	137	125	140	128	155	247	176	127	110	112	112
17	130	135	125	142	128	153	234	176	127	110	112	110
18	130	140	125	142	130	155	224	190	127	115	112	110
19	130	134	124	142	128	155	212	178	127	112	110	115
20	130	132	123	142	132	155	210	175	125	110	110	115
21	130	130	123	142	140	153	213	174	122	110	110	125
22	127	130	124	142	135	158	233	171	122	110	110	115
23	127	130	126	142	132	183	277	182	120	110	110	117
24	127	130	123	142	130	186	303	172	120	110	117	130
25	142	128	127	140	133	178	312	167	120	112	115	122
26	145	127	140	137	132	179	296	175	117	112	150	115
27	140	124	137	134	135	193	269	168	117	112	122	117
28	135	125	137	130	154	197	254	170	117	112	120	132
29	135	125	140	126	---	187	254	165	115	112	117	137
30	135	125	142	122	---	180	250	160	115	112	179	142
31	135	---	140	120	---	192	---	159	---	112	140	---
TOTAL	4084	3946	3983	4253	3554	5350	8093	5944	3974	3471	3641	3534
MEAN	132	132	128	137	127	173	270	192	132	112	117	118
MAX	145	145	142	142	154	235	433	270	161	117	179	142
MIN	127	124	123	120	115	148	197	159	115	110	110	110
CFSM	2.10	2.10	2.03	2.18	2.02	2.75	4.29	3.05	2.10	1.78	1.86	1.87
IN.	2.41	2.33	2.35	2.51	2.10	3.16	4.78	3.51	2.35	2.05	2.15	2.09
AC-FT	8100	7830	7900	8440	7050	10610	16050	11790	7880	6880	7220	7010

CAL YR 1976 TOTAL 77567 MEAN 212 MAX 635 MIN 123 CFSM 3.37 IN 45.80 AC-FT 153900
WTR YR 1977 TOTAL 53827 MEAN 147 MAX 433 MIN 110 CFSM 2.33 IN 31.78 AC-FT 106800

14010800 NORTH FORK WALLA WALLA RIVER NEAR MILTON-FREEWATER, OR

LOCATION.--Lat 45°53'06", long 118°11'06", in SE¼NW¼ sec.28, T.5 N., R.37 E., Umatilla County, Hydrologic Unit 17070102, on right bank 2.8 mi (4.5 km) downstream from Little Meadow Canyon, 8.9 mi (14.3 km) southeast of Milton-Freewater, and at mile 5.6 (9.0 km).

DRAINAGE AREA.--34.4 mi^2 (89.1 km^2).

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,940 ft (591 m), from topographic map.

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--8 years, 55.2 ft^3/s (1.563 m^3/s), 21.79 in/yr (553 mm/yr), 39,990 acre-ft/yr (49.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,040 ft^3/s (29.5 m^3/s) Jan. 25, 1975, gage height, 6.58 ft (2.006 m), from rating curve extended above 400 ft^3/s (11.3 m^3/s) on basis of discharge measurement at gage height 5.67 ft (1.728 m) and slope-area measurement at gage height 6.30 ft (1.920 m); minimum, 4.9 ft^3/s (0.14 m^3/s) Sept. 5, 12, 13, Oct. 17-19, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 278 ft^3/s (7.87 m^3/s) Apr. 7, gage height, 4.93 ft (1.503 m), no peak above base of 300 ft^3/s (8.50 m^3/s); minimum, 6.1 ft^3/s (0.17 m^3/s) Aug. 10-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	19	9.0	13	14	32	45	35	21	7.9	6.6	21
2	8.7	16	9.2	12	13	29	44	37	21	7.9	7.0	16
3	8.2	12	9.1	11	13	29	44	43	20	7.9	6.9	14
4	8.0	11	9.0	10	12	28	65	39	19	8.2	6.9	12
5	7.9	10	8.8	10	12	30	106	34	18	8.2	6.9	11
6	7.8	10	8.7	9.5	12	40	147	32	17	7.9	6.9	10
7	7.7	9.7	10	9.0	11	70	210	30	17	7.6	6.8	9.7
8	7.6	9.4	11	9.0	11	99	240	29	16	7.4	6.7	9.2
9	7.6	9.3	11	9.2	11	115	186	29	16	7.4	6.7	9.0
10	7.7	9.2	10	9.3	12	88	150	29	15	7.3	6.6	8.7
11	7.8	9.0	10	9.6	13	57	127	28	15	7.3	6.4	8.3
12	7.8	9.0	10	10	14	44	121	28	17	7.3	6.4	8.0
13	8.0	9.0	9.8	11	15	38	119	27	15	7.3	6.4	7.9
14	8.0	9.0	9.7	12	15	32	109	26	14	7.2	6.4	7.7
15	8.0	9.5	10	12	14	29	97	26	13	7.1	6.4	7.4
16	7.9	11	9.8	15	14	27	94	26	12	6.9	6.7	7.4
17	8.0	14	9.7	20	14	27	83	25	12	7.4	6.6	7.4
18	8.0	16	9.7	25	15	27	70	25	11	8.0	6.6	7.2
19	8.0	14	9.7	30	15	27	60	25	11	7.8	6.7	7.4
20	8.0	12	9.0	28	16	27	57	25	11	7.4	6.6	7.6
21	8.0	11	9.5	26	16	26	53	25	10	7.2	6.7	7.9
22	8.0	10	9.4	24	16	27	58	25	10	7.1	6.7	7.9
23	8.0	10	9.4	21	16	40	68	25	9.8	7.0	6.7	7.5
24	8.1	10	9.4	20	15	44	76	25	9.1	7.1	7.7	8.8
25	17	10	10	18	15	39	77	25	9.0	7.0	7.7	9.0
26	22	10	21	17	16	37	68	25	8.7	6.9	18	8.3
27	13	9.3	20	16	20	46	55	24	8.5	6.8	14	8.0
28	11	9.3	18	15	28	50	45	24	8.3	6.8	11	9.4
29	9.8	9.3	17	15	---	42	41	23	8.2	6.8	10	14
30	9.5	9.3	16	14	---	37	37	23	8.1	6.8	41	15
31	9.1	---	15	14	---	39	---	22	---	6.7	30	---
TOTAL	281.8	326.3	347.9	474.6	408	1322	2752	864	400.7	227.6	292.7	292.7
MEAN	9.09	10.9	11.2	15.3	14.6	42.6	91.7	27.9	13.4	7.34	9.44	9.76
MAX	22	19	21	30	28	115	240	43	21	8.2	41	21
MIN	7.6	9.0	8.7	9.0	11	26	37	22	8.1	6.7	6.4	7.2
CFSM	.26	.32	.33	.45	.42	1.24	2.67	.81	.39	.21	.27	.28
IN.	.30	.35	.38	.51	.44	1.43	2.98	.93	.43	.25	.32	.32
AC-FT	559	647	690	941	809	2620	5460	1710	795	451	581	581

CAL YR 1976	TOTAL	17409.8	MEAN 47.6	MAX 253	MIN 7.4	CFSM 1.38	IN 18.83	AC-FT 34530
WTR YR 1977	TOTAL	7990.3	MEAN 21.9	MAX 240	MIN 6.4	CFSM .64	IN 8.64	AC-FT 15850

14019200 COLUMBIA RIVER AT MCNARY DAM, NEAR UMATILLA, OR

LOCATION.--Lat 45°56'05", long 119°17'45", in NE¼ sec.10, T.5 N., R.28 E., Umatilla County, Hydrologic Unit 17070101, in powerhouse forebay between generator units 2 and 3 at McNary Dam, 2.5 mi (4.0 km) northeast of Umatilla, 3.0 mi (4.8 km) upstream from Umatilla River, and at mile 292.0 (469.8 km).

DRAINAGE AREA.--214,000 mi² (554,300 km²), approximately.

PERIOD OF RECORD.--October 1950 to current year. Gage-height records collected at site at Umatilla since 1876 are contained in reports of U.S. Weather Bureau. Prior to October 1966, published as "below McNary Dam."

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1966, at site 1.2 mi (1.9 km) downstream (tailwater) at datum 240.04 ft (73.164 m) above mean sea level.

REMARKS.--Records computed from power output and flow over spillway at McNary Dam. Considerable regulation by many reservoirs upstream. Diurnal fluctuation caused by powerplant and gates at McNary Dam since beginning of operation in April 1953. Many diversions for irrigation above station.

COOPERATION.--Daily discharge records furnished by Corps of Engineers. Two discharge measurements made and records reviewed by Geological Survey.

AVERAGE DISCHARGE.--27 years, 185,200 ft³/s (5,245 m³/s), 134,200,000 acre-ft/yr (165 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 818,000 ft³/s (23,200 m³/s) June 2, 1956, elevation, 277.01 ft (84.433 m), at site 1.2 mi (1.9 km) downstream; maximum daily discharge, 798,000 ft³/s (22,600 m³/s) June 2, 1956; minimum daily discharge, 39,500 ft³/s (1,120 m³/s) July 10, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 5, 1894, reached an elevation of 284.2 ft (86.62 m), and that of May 31, 1948, reached an elevation of about 280 ft (85.3 m), both at site 1.2 mi (1.9 km) downstream from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 183,000 ft³/s (5,180 m³/s) May 27; maximum forebay elevation, 339.8 ft (103.57 m) Mar. 12; minimum daily discharge, 39,500 ft³/s (1,120 m³/s) July 10; minimum forebay elevation, 337.1 ft (102.75 m) May 13, June 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125000	133000	157000	122000	156000	132000	127000	107000	161000	86800	113000	107000
2	128000	137000	147000	124000	165000	140000	99500	136000	160000	104000	115000	115000
3	112000	127000	119000	162000	174000	137000	71700	160000	175000	63300	109000	101000
4	177000	138000	121000	141000	155000	153000	84300	174000	112000	69200	121000	71800
5	141000	140000	121000	164000	118000	112000	87600	143000	101000	66000	88000	70800
6	145000	114000	132000	168000	96000	88600	95200	150000	97100	93800	72800	118000
7	125000	113000	117000	161000	154000	145000	94900	122000	148000	91900	81500	99300
8	148000	119000	134000	115000	135000	132000	81500	64000	142000	114000	81700	104000
9	131000	119000	125000	111000	131000	132000	80500	130000	138000	63200	112000	107000
10	115000	144000	125000	131000	117000	138000	92400	161000	120000	39500	91500	89200
11	127000	129000	117000	149000	114000	128000	100000	167000	109000	98200	89700	60500
12	144000	137000	118000	157000	86100	118000	99100	159000	87200	103000	113000	104000
13	152000	123000	137000	122000	104000	83200	118000	152000	118000	88300	83600	113000
14	161000	125000	139000	132000	115000	130000	115000	93800	137000	111000	71500	115000
15	143000	129000	138000	123000	122000	118000	115000	107000	112000	117000	106000	110000
16	116000	136000	142000	115000	109000	155000	93400	130000	154000	86900	116000	118000
17	138000	139000	140000	132000	124000	109000	67500	156000	153000	74400	99900	102000
18	157000	130000	109000	125000	118000	130000	96900	146000	114000	95200	110000	71600
19	146000	119000	116000	142000	122000	122000	119000	144000	81000	117000	93400	75300
20	148000	119000	147000	155000	83500	82300	110000	117000	97300	112000	84700	96700
21	131000	116000	144000	128000	104000	113000	113000	119000	134000	112000	66200	102000
22	134000	128000	150000	137000	144000	115000	110000	89000	106000	105000	96700	101000
23	120000	131000	146000	145000	129000	120000	92200	141000	107000	86500	116000	117000
24	110000	148000	128000	176000	124000	133000	83000	163000	125000	65900	101000	106000
25	125000	132000	111000	169000	145000	132000	100000	182000	103000	78600	101000	99100
26	136000	111000	92500	171000	120000	109000	138000	173000	69200	105000	92400	109000
27	142000	129000	119000	161000	93500	81600	120000	183000	122000	105000	79700	115000
28	153000	120000	148000	160000	133000	117000	122000	131000	121000	96900	64600	106000
29	153000	167000	136000	171000	---	132000	109000	80200	99500	115000	106000	115000
30	147000	149000	141000	157000	---	122000	116000	98100	112000	91700	90300	108000
31	89400	---	152000	156000	---	125000	---	151000	---	74300	94000	---
TOTAL	4219400	3901000	4068500	4482000	3491100	3784700	3051700	4229100	3615300	2830600	2961200	3027300
MEAN	136100	130000	131200	144600	124700	122100	101700	136400	120500	91310	95520	100900
MAX	177000	167000	157000	176000	174000	155000	138000	183000	175000	117000	121000	118000
MIN	89400	111000	92500	111000	83500	81600	67500	64000	69200	39500	64600	60500
AC-FT	8369000	7738000	8070000	8890000	6925000	7507000	6053000	8388000	7171000	5614000	5874000	6005000

CAL YR 1976 TOTAL 77234900 MEAN 211000 MAX 414000 MIN 89400 AC-FT 153200000
WTR YR 1977 TOTAL 43661900 MEAN 119600 MAX 183000 MIN 39500 AC-FT 86600000

14019250 COLUMBIA RIVER AT UMATILLA, OR

LOCATION.--Lat 45°55'53", long 119°19'39", in SW¼NW¼ sec.9, T.5 N., R.28 E., Umatilla County, Hydrologic Unit 17070101, near center span on upstream side of bridge at Umatilla, and at mile 290.5 (467.4 km).

DRAINAGE AREA.--214,000 mi^2 (554,300 km^2), approximately.

PERIOD OF RECORD.--Water years 1975 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1974 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 22.5°C Aug. 17, 1977; minimum, 1.0°C Feb. 7, 1976.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 22.5°C Aug. 17; minimum, 2.0°C Jan. 12-15.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	DIS-CHARGE (CFS)	TEMPER-ATURE (DEG C)	PH (UNITS)	DIS-SOLVED OXYGEN (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	FECAL COLI-FORM .7UM-MF (COL./100 ML)	FECAL STREP-TOCOCCI KF AGAR (COL. PER 100 ML)	CHLORO-PHYLL A (UG/L)	CHLORO-PHYLL B (UG/L)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)
OCT												
20...	0900	148000	14.5	8.5	10.0	161	<1	87	9.27	3.63	--	--
DEC												
02...	0900	147100	7.0	8.0	12.2	197	84	81	.000	.000	--	--
30...	1000	140800	5.7	8.2	12.2	191	82	22	--	--	--	--
JAN												
27...	1000	160500	2.7	7.9	13.5	187	82	21	--	--	.027	.000
MAR												
04...	1000	152900	4.2	8.3	13.1	210	88	81	--	--	--	--
24...	0930	132700	5.6	8.0	13.5	186	<1	<1	--	--	.120	.000
APR												
26...	1600	137800	11.0	8.5	12.7	212	<1	80	7.17	2.09	--	--
MAY												
25...	0900	182200	13.5	8.4	--	160	<1	84	23.9	5.32	--	--
JUL												
01...	1000	86800	19.3	--	9.7	142	<1	84	7.60	.953	--	--
28...	1000	96900	19.8	8.4	9.6	150	<1	<1	.455	.000	--	--
AUG												
31...	1200	94000	19.4	8.1	9.0	142	81	<1	--	--	--	--

DATE	CHEM-ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)
OCT											
20...	4	6.2	.20	.03	.22	.25	.45	.02	2.3	88	35200
DEC											
02...	15	7.7	.23	.00	.15	.15	.38	.03	1.3	120	47700
30...	--	8.7	.32	.00	.45	.45	.77	.03	1.4	113	43000
JAN											
27...	8	8.9	.31	.00	.12	.12	.43	.03	12	110	47700
MAR											
04...	12	6.3	.18	.00	.50	.50	.68	.01	1.4	105	43300
24...	7	6.6	.18	.02	.28	.30	.48	.02	1.2	116	41600
APR											
26...	13	20	.09	.04	.21	.25	.34	.01	1.9	112	41700
MAY											
25...	15	11	.00	.06	.65	.71	.71	.05	1.9	90	44300
JUL											
01...	0	3.8	.01	.05	.00	.05	.06	.02	2.0	77	18000
28...	0	3.3	.01	.01	.22	.23	.24	.01	1.9	87	22800
AUG											
31...	6	5.3	.10	.04	.09	.13	.23	.01	--	80	20300

14019250 COLUMBIA RIVER AT UMATILLA, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS- SOLVED SOLIDS (TONS PER AC-FT)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
OCT											
20...	.12	2	<10	0	<10	280	<100	30	0	.0	0
DEC											
02...	.16	2	<10	0	30	110	100	30	0	.0	0
30...	.15	2	<10	0	<10	150	<100	30	0	.0	4
JAN											
27...	.15	1	<10	0	<10	170	<100	40	0	.0	0
MAR											
04...	.14	3	<10	0	<10	200	<100	30	0	.0	0
24...	.16	0	<10	0	<10	220	<100	30	0	.0	0
APR											
26...	.15	1	<10	0	20	150	100	90	0	.0	8
MAY											
25...	.12	--	<10	10	10	180	<100	70	0	.0	8
JUL											
01...	.10	1	<10	10	10	130	<100	60	0	.0	2
28...	.12	1	<10	10	20	480	<100	50	0	.0	78
AUG											
31...	.11	0	<10	10	20	150	<100	20	0	.0	4

DATE	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	TOTAL SODIUM (NA) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	OIL AND GREASE (MG/L)
OCT									
20...	--	--	--	--	68	0	11	3.0	0
JAN									
27...	24	6.2	1.5	6.8	87	0	20	3.3	0
APR									
26...	24	6.4	1.3	7.3	94	0	19	4.4	0
JUL									
28...	31	<.7	1.1	0.9	72	0	12	1.9	0

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.0	18.0	13.0	12.5	7.5	7.5	5.5	5.0	2.5	2.5	4.0	4.0
2	18.5	18.0	12.5	12.5	7.5	7.5	5.0	5.0	2.5	2.5	4.0	4.0
3	18.0	17.5	12.5	12.5	7.5	7.5	5.0	4.5	2.5	2.5	4.5	4.0
4	18.0	17.5	12.5	12.5	7.5	7.0	4.5	4.5	2.5	2.5	4.5	4.0
5	17.0	16.5	13.0	12.5	7.0	7.0	4.5	4.0	2.5	2.5	4.0	4.0
6	17.0	16.5	13.0	12.5	7.0	7.0	4.0	4.0	2.5	2.5	4.0	4.0
7	17.0	16.0	12.5	12.5	7.0	7.0	4.0	3.5	2.5	2.5	4.5	4.0
8	17.0	16.0	12.5	12.5	7.0	7.0	3.5	3.5	2.5	2.5	4.5	4.5
9	16.5	16.0	12.5	12.5	7.0	7.0	3.5	3.0	2.5	2.5	5.0	4.5
10	17.0	16.5	12.5	12.5	7.5	7.0	3.0	2.5	3.0	2.5	5.0	5.0
11	17.0	16.5	12.5	12.5	7.5	7.0	2.5	2.5	3.0	3.0	5.0	5.0
12	16.5	16.0	12.5	12.0	7.0	7.0	2.5	2.0	3.0	3.0	5.0	5.0
13	16.5	15.5	12.0	12.0	7.0	7.0	2.0	2.0	3.5	3.0	5.0	4.5
14	17.0	16.0	12.0	11.5	7.0	7.0	2.5	2.0	4.0	3.5	4.5	4.5
15	16.5	16.0	11.5	11.5	7.0	6.5	2.5	2.0	4.0	4.0	4.5	4.5
16	16.0	15.5	11.5	11.5	6.5	6.5	2.5	2.5	4.5	4.0	5.0	4.5
17	16.0	15.5	11.5	11.0	6.5	6.5	2.5	2.5	4.5	4.5	5.0	4.5
18	15.5	15.0	11.5	11.5	6.5	6.5	3.0	2.5	4.5	4.0	5.0	5.0
19	15.0	14.5	11.5	11.0	6.5	6.5	3.0	3.0	4.5	4.0	5.0	5.0
20	14.5	14.0	11.5	11.5	6.5	6.0	3.5	3.0	4.5	4.0	5.0	5.0
21	14.5	14.0	11.5	11.0	6.0	6.0	3.5	3.5	4.5	4.5	5.0	5.0
22	14.5	13.5	11.0	10.5	6.0	6.0	3.5	3.5	4.5	4.5	5.5	5.0
23	14.0	13.5	10.5	10.0	6.0	6.0	3.5	3.5	4.5	4.0	5.5	5.5
24	14.0	13.5	10.0	10.0	6.0	6.0	3.5	3.5	4.5	4.0	5.5	5.5
25	13.5	13.5	10.0	9.5	6.0	5.5	3.5	3.0	4.5	4.0	6.0	5.5
26	14.0	13.0	9.5	9.0	6.0	5.5	3.0	3.0	4.0	4.0	6.0	6.0
27	13.5	12.5	9.0	9.0	6.0	5.5	3.0	3.0	4.0	4.0	6.0	6.0
28	13.0	12.5	9.0	8.5	5.5	5.5	3.0	3.0	4.0	4.0	6.0	6.0
29	13.0	12.5	8.5	8.5	5.5	5.5	3.0	2.5	---	---	6.0	6.0
30	13.0	13.0	8.0	7.5	5.5	5.5	2.5	2.5	---	---	6.5	6.0
31	13.0	13.0	---	---	5.5	5.5	2.5	2.5	---	---	6.5	6.0
MONTH	19.0	12.5	13.0	7.5	7.5	5.5	5.5	2.0	4.5	2.5	6.5	4.0

14019250 COLUMBIA RIVER AT UMATILLA, OR—Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.5	6.5	11.5	11.5	13.5	13.5	19.5	19.0	20.5	20.0	19.0	19.0
2	6.5	6.5	12.0	11.5	14.5	13.5	19.5	19.0	20.5	20.0	19.0	19.0
3	7.0	6.5	12.0	11.5	14.5	14.0	19.0	19.0	20.5	20.0	19.0	19.0
4	7.0	6.5	12.0	12.0	14.0	13.5	19.0	19.0	20.5	20.0	19.0	19.0
5	7.5	7.0	12.0	11.5	14.5	14.0	19.0	19.0	21.0	20.5	19.0	19.0
6	7.5	7.0	11.5	11.0	15.0	14.0	19.0	18.5	21.5	20.5	19.5	19.0
7	8.0	7.5	11.0	11.0	15.0	14.5	19.0	18.5	21.5	21.0	19.5	19.0
8	8.5	8.0	11.0	11.0	15.0	14.0	19.0	18.5	21.5	21.0	19.5	19.0
9	8.5	8.0	11.5	11.0	16.5	15.0	18.5	18.0	21.0	20.5	19.5	19.5
10	9.0	8.5	11.5	11.0	16.5	16.0	18.5	18.0	21.5	21.0	19.5	19.5
11	9.5	9.0	11.5	11.0	16.5	16.5	18.5	18.5	21.5	21.0	19.5	19.5
12	9.5	9.0	12.5	11.5	16.5	16.5	18.5	18.5	22.0	21.5	19.5	19.0
13	9.5	9.0	12.5	12.0	17.5	16.5	18.5	18.5	21.5	21.5	19.0	19.0
14	9.5	9.0	12.0	12.0	17.5	17.0	19.0	18.5	21.5	21.0	19.0	18.5
15	9.5	9.0	12.0	12.0	17.0	16.5	19.5	19.0	22.0	21.0	19.0	18.5
16	9.5	9.5	12.5	12.0	17.5	17.0	19.5	19.0	22.5	21.5	19.0	18.5
17	9.5	9.5	12.0	12.0	17.5	17.0	19.0	19.0	22.5	22.0	18.5	18.5
18	9.5	9.5	12.0	12.0	17.5	17.0	19.5	19.0	22.0	22.0	18.5	18.5
19	9.5	9.5	12.0	12.0	17.5	17.0	19.5	19.0	22.0	22.0	18.5	18.5
20	9.5	9.5	12.0	12.0	18.0	17.0	19.5	19.0	22.0	22.0	18.5	18.0
21	9.5	9.5	12.5	12.0	18.0	17.5	19.5	19.0	22.0	21.5	18.0	18.0
22	10.0	9.5	13.0	12.5	18.5	18.0	19.0	19.0	22.0	21.5	---	---
23	10.0	9.5	13.0	12.5	18.5	18.0	19.5	19.0	22.0	22.0	---	---
24	10.5	10.0	13.5	13.0	19.0	18.5	19.5	19.0	22.0	21.5	---	---
25	10.5	10.0	13.5	13.5	19.0	18.5	20.0	19.5	21.5	21.0	---	---
26	10.5	10.0	13.5	13.0	19.0	18.5	20.0	19.5	21.0	20.5	---	---
27	11.5	10.5	13.0	13.0	19.0	18.5	20.5	19.5	20.5	20.5	---	---
28	11.5	11.0	13.0	13.0	20.0	19.0	19.5	19.0	20.5	20.0	---	---
29	11.5	11.0	13.0	13.0	20.0	19.0	20.0	19.5	20.0	19.5	---	---
30	11.5	11.5	13.0	13.0	20.0	19.5	20.0	20.0	19.5	19.0	---	---
31	---	---	13.5	13.0	---	---	20.0	20.0	19.0	19.0	---	---
MONTH	11.5	6.5	13.5	11.0	20.0	13.5	20.5	18.0	22.5	19.0	19.5	18.0

14020000 UMATILLA RIVER ABOVE MEACHAM CREEK, NEAR GIBBON, OR

LOCATION.--Lat 45°43'11", long 118°19'20", in SE¼SW¼ sec.21, T.3 N., R.36 E., Umatilla County, Hydrologic Unit 17070103, Umatilla Indian Reservation, on right bank 0.8 mi (1.3 km) downstream from Ryan Creek, 2.2 mi (3.5 km) upstream from Meacham Creek, 2.5 mi (4.0 km) northeast of Gibbon, and at mile 83.1 (133.7 km).

DRAINAGE AREA.--131 mi^2 (339 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1933 to current year.

REVISED RECORDS.--WSP 1935: 1946-48(M), 1950(M), 1953(M), 1956-59(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,854.81 ft (565.346 m) above mean sea level. Prior to June 27, 1939, at site 1 mi (2 km) downstream at datum 43.94 ft (13.393 m) lower.

REMARKS.--Water-discharge records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--44 years, 226 ft^3/s (6.400 m^3/s), 23.43 in/yr (595 mm/yr), 163,700 acre-ft/yr (202 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,930 ft^3/s (168 m^3/s) Jan. 25, 1975, gage height, 9.18 ft (2.798 m), from rating curve extended above 3,500 ft^3/s (99.1 m^3/s); maximum gage height, 9.50 ft (2.896 m) Jan. 29, 1965; minimum discharge, 16 ft^3/s (0.45 m^3/s) Nov. 9, 1965, momentary regulation from unknown source.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,270 ft^3/s (36.0 m^3/s) Apr. 7, no peak above base of 1,400 ft^3/s (39.6 m^3/s); maximum gage height, 5.03 ft (1.533 m) Dec. 8, backwater from ice; minimum daily discharge, 38 ft^3/s (1.08 m^3/s) Jan. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	64	53	54	64	164	346	242	134	50	47	71
2	52	65	53	54	62	155	306	266	129	52	49	63
3	51	63	53	54	60	149	294	278	118	50	49	56
4	50	62	53	53	60	137	430	259	112	53	47	54
5	51	60	53	47	59	152	607	238	105	54	47	52
6	50	59	54	41	59	231	750	221	99	54	47	50
7	48	59	57	39	59	294	936	203	94	52	49	49
8	48	59	57	38	59	319	992	194	94	50	47	48
9	48	58	60	40	60	341	711	214	87	50	47	48
10	48	57	57	43	62	290	535	203	81	50	45	48
11	48	57	56	47	64	221	477	200	77	50	45	48
12	49	57	56	55	65	191	466	191	77	50	45	46
13	48	57	53	58	72	170	499	185	77	49	45	45
14	47	57	54	62	76	149	435	179	75	50	45	45
15	49	61	54	66	73	143	395	161	71	50	45	46
16	49	61	54	70	71	137	405	155	68	49	45	46
17	49	61	54	86	71	132	368	152	66	49	45	46
18	50	62	54	105	73	137	337	170	64	53	45	46
19	50	59	53	122	74	146	298	158	63	53	45	50
20	51	58	53	116	75	149	282	152	61	50	45	50
21	51	57	52	105	88	140	290	149	60	50	45	56
22	52	57	52	95	89	161	310	146	59	49	45	55
23	52	56	53	87	85	263	391	164	57	49	45	52
24	52	56	52	81	78	249	445	152	57	49	52	68
25	77	56	53	76	77	214	445	140	56	49	52	69
26	86	55	63	73	76	203	395	155	54	47	74	63
27	65	54	62	70	79	224	328	153	53	47	62	60
28	59	53	60	68	120	228	294	153	53	47	56	70
29	57	53	59	67	---	203	282	148	52	47	56	90
30	57	53	57	64	---	191	259	139	50	47	114	137
31	57	---	56	63	---	238	---	133	---	47	96	---
TOTAL	1649	1746	1710	2099	2010	6121	13308	5653	2303	1546	1621	1727
MEAN	53.2	58.2	55.2	67.7	71.8	197	444	182	76.8	49.9	52.3	57.6
MAX	86	65	63	122	120	341	992	278	134	54	114	137
MIN	47	53	52	38	59	132	259	133	50	47	45	45
CFSM	.41	.44	.42	.52	.55	1.50	3.39	1.39	.59	.38	.40	.44
IN.	.47	.50	.49	.60	.57	1.74	3.78	1.61	.65	.44	.46	.49
AC-FT	3270	3460	3390	4160	3990	12140	26400	11210	4570	3070	3220	3430

CAL YR 1976 TOTAL 88378 MEAN 241 MAX 1310 MIN 37 CFSM 1.84 IN 25.10 AC-FT 175300
WTR YR 1977 TOTAL 41493 MEAN 114 MAX 992 MIN 38 CFSM .87 IN 11.78 AC-FT 82300

14020000 UMATILLA RIVER ABOVE MEACHAM CREEK, NEAR GIBBON, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June 1959 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 25.0°C July 13, 15, 21, 1961; minimum, 0.0°C on several days during winter period in 1960, 1962-64, 1968, 1969, 1973.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 23.5°C July 26, 27; minimum, 2.0°C Dec. 23, Jan. 28.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.0	12.0	10.0	9.5	3.5	3.0	4.0	3.5	3.5	3.5	4.5	4.0
2	14.5	13.0	10.0	9.5	3.5	3.0	3.5	3.0	3.5	3.5	5.0	4.0
3	14.0	11.5	10.0	9.5	3.5	3.0	3.0	3.0	3.5	3.5	4.5	3.5
4	12.0	10.0	9.5	9.5	3.5	3.5	3.0	3.0	3.5	3.0	5.5	4.0
5	13.0	10.0	9.5	9.0	3.5	3.5	3.0	3.0	3.5	3.5	5.5	4.0
6	13.0	10.5	9.5	9.0	4.5	3.5	3.0	3.0	3.5	3.5	5.5	4.5
7	13.0	10.0	9.0	8.5	5.0	4.5	3.0	3.0	3.5	3.5	5.0	4.5
8	13.5	10.5	9.0	8.5	5.0	4.5	3.0	3.0	4.0	3.0	5.0	4.0
9	13.5	10.5	8.5	8.0	5.0	4.5	3.0	3.0	5.0	3.5	5.0	4.5
10	13.5	10.5	8.5	8.0	4.5	4.5	3.0	3.0	5.5	4.0	5.0	4.0
11	13.5	11.5	8.5	8.0	5.0	4.5	3.0	3.0	5.5	4.5	5.0	3.5
12	12.0	10.0	8.5	8.0	4.5	4.5	---	---	6.0	5.0	4.0	4.0
13	12.0	10.0	8.0	6.0	4.5	4.0	---	---	6.0	4.5	4.0	3.5
14	11.0	9.5	6.5	6.0	4.5	4.0	---	---	4.5	4.0	5.5	4.0
15	10.5	8.5	7.0	6.0	4.5	4.5	4.0	3.5	5.0	4.0	5.0	4.0
16	10.5	8.5	8.5	7.0	5.0	4.5	4.5	4.0	5.5	4.5	5.0	4.5
17	9.5	8.0	9.0	8.0	4.5	4.0	4.5	4.5	5.5	4.5	5.0	4.5
18	8.5	6.5	8.5	8.0	4.5	4.0	4.5	4.0	5.5	4.5	5.0	4.0
19	8.5	6.5	8.0	6.0	4.0	3.5	4.5	4.0	5.5	4.5	5.0	4.5
20	8.0	6.5	6.0	5.0	3.5	3.0	4.5	4.0	5.5	4.5	5.0	4.5
21	8.5	6.5	6.0	5.5	3.5	3.0	4.5	4.0	5.0	4.5	6.0	4.5
22	8.5	7.0	6.0	5.5	3.5	3.0	4.5	4.0	5.0	4.5	8.5	5.0
23	8.5	7.0	5.5	5.0	3.0	2.0	4.0	4.0	5.0	4.5	6.0	5.0
24	9.0	8.0	6.0	5.0	3.5	3.0	4.0	4.0	5.0	4.5	6.0	4.5
25	9.0	9.0	6.0	5.0	4.0	3.5	4.0	3.5	4.5	4.5	7.0	4.5
26	9.5	8.5	5.0	3.5	4.0	4.0	3.5	3.0	5.0	4.5	5.5	5.0
27	8.5	7.0	3.5	3.0	4.5	4.0	3.5	3.0	5.0	4.5	5.5	4.5
28	8.5	7.0	4.5	3.0	4.0	3.5	3.0	2.0	5.0	4.5	4.5	3.5
29	9.5	8.0	4.5	4.0	3.5	3.5	3.0	3.0	---	---	5.5	4.0
30	8.5	8.0	4.0	3.5	3.5	3.5	3.0	3.0	---	---	7.0	4.5
31	9.5	8.0	---	---	3.5	3.5	3.5	3.0	---	---	5.0	5.0
MONTH	15.0	6.5	10.0	3.0	5.0	2.0	4.5	2.0	6.0	3.0	8.5	3.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.5	5.0	10.5	7.0	12.0	9.0	20.0	15.0	23.0	15.0	16.5	11.0
2	6.5	5.0	9.5	8.5	14.5	8.0	20.0	13.5	20.5	16.0	16.0	12.0
3	9.0	5.5	8.5	7.0	11.5	9.5	19.0	14.0	23.0	15.5	17.0	13.5
4	9.0	5.0	8.0	6.5	16.5	11.0	16.0	13.5	22.0	16.0	18.5	14.5
5	8.5	5.0	10.0	6.0	19.5	11.0	17.0	12.0	22.0	16.0	18.5	15.0
6	8.5	5.0	7.0	6.0	18.0	13.0	19.5	12.0	21.5	15.5	18.0	13.5
7	8.5	5.5	10.5	6.0	20.5	13.5	20.5	12.0	21.5	15.5	16.5	12.0
8	6.0	5.5	11.5	6.5	19.0	13.5	20.5	13.5	22.0	15.0	16.0	12.0
9	6.5	5.5	11.0	6.5	17.0	11.0	19.5	14.5	21.5	15.0	16.0	11.0
10	8.0	5.5	9.0	8.0	18.0	11.0	20.0	14.0	22.0	15.5	16.0	11.0
11	8.0	5.5	10.0	7.0	18.0	12.0	21.0	13.5	22.0	15.5	16.0	11.5
12	9.0	5.0	10.5	7.0	19.5	12.0	19.0	14.5	22.0	15.5	15.5	11.5
13	7.0	6.0	13.0	7.0	16.0	13.5	20.5	13.0	22.0	15.5	16.0	11.0
14	8.5	5.5	11.0	8.0	18.5	12.0	21.0	13.5	21.5	16.0	15.0	11.5
15	8.0	5.5	11.0	7.0	19.5	12.0	21.5	14.0	22.0	16.0	14.5	12.0
16	7.0	6.0	10.0	8.0	20.0	12.0	---	15.0	22.0	16.0	13.0	11.5
17	9.0	5.5	8.5	8.0	20.5	12.0	---	16.0	22.0	15.5	13.0	10.0
18	6.5	5.0	9.0	8.0	20.5	13.0	18.5	15.5	22.0	16.0	14.0	12.0
19	8.0	4.5	14.0	7.0	20.0	14.0	21.5	14.0	22.0	16.5	13.5	12.0
20	8.5	4.5	13.5	7.0	19.5	13.5	22.0	15.0	22.0	16.5	13.5	12.0
21	7.0	6.0	13.5	9.0	21.0	14.5	21.5	15.5	21.0	17.0	13.5	11.0
22	11.0	6.0	14.5	8.0	20.5	15.0	22.0	15.5	20.5	16.5	13.0	10.5
23	11.0	6.0	11.0	9.0	21.5	13.5	23.0	15.5	19.0	15.0	11.0	10.0
24	11.5	6.0	13.5	8.5	21.5	13.5	20.0	17.0	18.0	16.0	12.0	10.5
25	10.0	6.5	13.5	8.0	22.0	14.5	23.0	15.5	16.5	15.0	12.0	10.5
26	10.5	6.5	10.0	8.5	21.0	14.0	23.5	16.0	15.5	15.0	13.0	10.0
27	11.0	5.5	11.5	7.0	21.0	14.5	23.5	15.5	18.0	14.5	11.5	10.5
28	11.0	6.0	11.0	7.0	22.0	14.0	21.0	16.0	15.5	14.0	11.5	11.0
29	11.5	7.0	14.0	6.5	21.0	14.5	21.0	14.5	15.0	14.5	12.0	11.0
30	10.5	7.0	12.0	7.0	21.5	13.5	21.5	15.0	14.5	13.0	11.5	10.5
31	---	---	15.5	9.5	---	---	22.0	14.5	14.5	11.5	---	---
MONTH	11.5	4.5	15.5	6.0	22.0	8.0	23.5	12.0	23.0	11.5	18.5	10.0

14020300 MEACHAM CREEK AT GIBBON, OR

LOCATION.--Lat 45°41'20", long 118°21'20", in SE¼SE¼ sec.31, T.3 N., R.36 E., Umatilla County, Hydrologic Unit 17070103, on left bank 250 ft (76 m) downstream from Union Pacific railroad bridge, 0.9 mi (1.4 km) southeast of Gibbon, and at mile 1.4 (2.3 km).

DRAINAGE AREA.--176 mi² (456 km²).

PERIOD OF RECORD.--August 1975 to current year.

GAGE.--Water-stage recorder. *Datum of gage is 1,803.05 ft (549.570 m) above mean sea level.*

REMARKS.--Records good. No regulation or diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,750 ft³/s (77.9 m³/s) Dec. 7, 1975, gage height, 5.35 ft (1.631 m); minimum, 7.1 ft³/s (0.20 m³/s) Aug. 11-14, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 25, 1975, reached a stage of 7.21 ft (2.198 m), from floodmark, discharge, about 8,200 ft³/s (230 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,460 ft³/s (41.3 m³/s) Apr. 7, gage height, 4.80 ft (1.463 m), no peak above base of 1,600 ft³/s (45.3 m³/s); minimum, 7.1 ft³/s (0.20 m³/s) Aug. 11-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	20	16	20	25	87	214	143	101	18	9.5	16
2	13	20	16	20	24	95	230	145	95	18	9.5	15
3	13	19	16	20	24	99	214	155	85	17	9.5	15
4	13	19	16	20	23	95	293	160	77	17	8.9	16
5	12	19	16	18	23	101	544	145	70	16	8.4	15
6	12	19	17	19	22	145	742	136	65	15	8.4	15
7	12	19	18	18	22	181	987	127	60	15	8.9	15
8	12	19	18	15	22	190	1050	120	56	15	7.9	14
9	12	19	19	16	21	201	709	125	51	15	7.9	13
10	12	18	18	16	21	187	500	129	46	15	7.9	13
11	12	18	18	16	21	157	426	136	43	14	7.5	13
12	12	17	18	17	21	140	389	131	41	14	7.5	13
13	11	17	18	19	21	125	410	129	38	13	7.5	13
14	11	17	18	19	22	108	358	123	37	13	7.9	12
15	11	17	18	20	22	95	311	112	35	13	7.9	12
16	11	17	19	23	23	90	325	108	33	13	7.9	12
17	11	16	18	26	24	83	289	106	30	13	7.9	12
18	12	17	18	28	25	82	256	112	29	13	7.9	12
19	12	17	18	28	25	85	220	108	27	13	7.9	13
20	12	17	18	26	26	90	201	106	26	12	7.9	14
21	11	17	17	26	28	92	195	103	25	11	7.9	15
22	11	17	18	26	32	93	195	97	24	11	7.9	15
23	11	17	19	26	36	150	249	106	23	11	8.4	14
24	12	17	18	26	37	190	285	112	22	11	9.5	19
25	16	17	19	26	37	173	298	103	21	11	10	19
26	18	17	21	26	39	167	264	108	20	11	13	19
27	16	17	19	26	40	181	220	125	20	11	11	19
28	16	16	19	26	54	184	187	123	19	10	11	22
29	18	16	19	26	---	167	167	120	19	10	11	26
30	19	16	19	25	---	150	157	112	19	10	19	26
31	19	---	19	25	---	162	---	104	---	10	19	---
TOTAL	405	528	558	688	760	4145	10885	3769	1257	409	292.3	467
MEAN	13.1	17.6	18.0	22.2	27.1	134	363	122	41.9	13.2	9.43	15.6
MAX	19	20	21	28	54	201	1050	160	101	18	19	26
MIN	11	16	16	15	21	82	157	97	19	10	7.5	12
CFSM	.07	.10	.10	.13	.15	.76	2.06	.69	.24	.08	.05	.09
IN.	.09	.11	.12	.15	.16	.88	2.30	.80	.27	.09	.06	.10
AC-FT	803	1050	1110	1360	1510	8220	21590	7480	2490	811	580	926

CAL YR 1976 TOTAL 79418.0 MEAN 217 MAX 1860 MIN 11 CFSM 1.23 IN 16.79 AC-FT 157500
WTR YR 1977 TOTAL 24163.3 MEAN 66.2 MAX 1050 MIN 7.5 CFSM .38 IN 5.11 AC-FT 47930

14021000 UMATILLA RIVER AT PENDLETON, OR

LOCATION.--Lat 45°40'20", long 118°47'30", in NW¼NE¼ sec.10, T.2 N., R.32 E., Umatilla County, Hydrologic Unit 17070103, on wingwall 0.3 mi (0.5 km) downstream from Main Street bridge at Pendleton, 1.5 mi (2.4 km) downstream from Wildhorse Creek, 2.8 mi (4.5 km) upstream from McKay Creek, and at mile 55.2 (88.8 km).

DRAINAGE AREA.--637 mi^2 (1,650 km^2).

PERIOD OF RECORD.--February 1891 to July 1892, May 1903 to June 1905 (gage heights and discharge measurements only June to December 1904), October 1934 to current year. Monthly discharge only February 1891 to July 1892, published in WSP 1318.

REVISED RECORDS.--WSP 1398: 1904, 1937.

GAGE.--Water-stage recorder. Altitude of gage is 1,050 ft (320 m), from topographic map. Apr. 24 to Aug. 26, 1959, nonrecording gage and Aug. 27, 1959, to Feb. 4, 1965, water-stage recorder at same site at datum of 1,067.01 ft (325.225 m). Feb. 5 to Nov. 18, 1965, wire-weight gage at Main Street bridge site. Nov. 19, 1965, to Mar. 28, 1967, water-stage recorder at site 0.7 mi (1.1 km) upstream at datum of 1,067.60 ft (325.404 m) and Nov. 19, 1965, to Sept. 30, 1969, at site 0.7 mi (1.1 km) upstream at datum of 1,064.02 ft (324.313 m). See WSP 1738 for history of changes prior to Apr. 24, 1959.

REMARKS.--Records good. No regulation. Many diversions for irrigation above station.

AVERAGE DISCHARGE.--43 years (water years 1935-77), 500 ft^3/s (14.16 m^3/s), 362,200 acre-ft/yr (447 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft^3/s (439 m^3/s) Jan. 30, 1965, gage height, 9.40 ft (2.865 m), datum then in use; minimum, 10 ft^3/s (0.28 m^3/s) July 13-16, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 17,000 ft^3/s (481 m^3/s) Dec. 14, 1882 (date and discharge from data furnished by Corps of Engineers). Flood of May 30, 31, 1906, reached a stage of 11.0 ft (3.35 m), 1934-58 site and datum, but before channel was improved, discharge, 15,500 ft^3/s (439 m^3/s), estimated by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,500 ft^3/s (70.8 m^3/s) Apr. 8, gage height, 7.16 ft (2.182 m), no peak above base of 3,500 ft^3/s (99.1 m^3/s); minimum, 20 ft^3/s (0.57 m^3/s) Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	86	76	84	99	260	616	395	240	54	29	97
2	58	89	76	84	99	319	650	395	240	54	29	82
3	59	89	76	82	97	346	616	420	215	54	30	76
4	61	89	76	78	97	332	731	437	207	55	28	71
5	58	86	76	74	95	353	1070	403	194	60	28	65
6	58	84	76	70	93	446	1380	367	168	58	29	55
7	51	82	78	66	93	624	1750	353	156	55	35	54
8	52	82	80	62	93	668	2080	339	147	53	31	53
9	52	82	82	60	93	686	1610	339	141	45	27	54
10	54	82	82	60	93	659	1230	346	129	46	26	54
11	51	82	80	62	93	539	1060	346	124	48	26	50
12	48	82	78	68	93	446	956	346	121	39	26	46
13	52	80	78	76	95	388	983	339	117	42	27	45
14	52	80	78	86	101	346	911	325	117	42	26	46
15	54	84	78	96	106	319	821	313	115	38	27	48
16	59	84	78	110	101	295	821	289	108	38	29	49
17	63	82	74	125	106	283	749	283	101	39	28	51
18	63	82	76	134	108	260	686	301	97	48	27	53
19	65	84	74	139	106	277	599	289	93	50	28	53
20	67	84	74	147	106	289	539	271	86	41	24	60
21	70	82	74	139	112	283	505	260	82	43	25	60
22	72	82	74	134	124	277	505	250	78	37	28	67
23	77	80	72	126	129	374	608	260	76	34	26	67
24	79	78	78	121	129	505	722	307	69	37	34	69
25	86	78	80	117	126	463	758	265	69	41	39	86
26	94	76	89	112	129	412	686	260	71	37	53	86
27	86	76	91	108	129	437	582	295	67	32	63	84
28	79	74	89	106	150	488	514	295	57	30	54	115
29	79	74	89	104	---	454	454	289	55	31	55	108
30	79	74	86	101	---	420	420	265	54	31	86	129
31	82	---	86	99	---	454	---	255	---	31	126	---
TOTAL	2016	2449	2454	3030	2995	12702	25612	9897	3594	1343	1149	2033
MEAN	65.0	81.6	79.2	97.7	107	410	854	319	120	43.3	37.1	67.8
MAX	94	89	91	147	150	686	2080	437	240	60	126	129
MIN	48	74	72	60	93	260	420	250	54	30	24	45
AC-FT	4000	4860	4870	6010	5940	25190	50800	19630	7130	2660	2280	4030

CAL YR 1976 TOTAL 200307 MEAN 547 MAX 3430 MIN 44 AC-FT 397300
WTR YR 1977 TOTAL 69274 MEAN 190 MAX 2080 MIN 24 AC-FT 137400

14022200 NORTH FORK MCKAY CREEK NEAR PILOT ROCK, OR

LOCATION.--Lat 45°30'24", long 118°36'57", in NE¼SE¼ sec.1, T.1 S., R.33 E., Umatilla County, Hydrologic Unit 17070103, Umatilla Indian Reservation, on left bank 10 mi (16 km) northeast of Pilot Rock and at mile 0.5 (0.8 km).

DRAINAGE AREA.--48.6 mi^2 (125.9 km^2).

PERIOD OF RECORD.--May 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,870 ft (570 m), from topographic map.

REMARKS.--Records good. No regulation or diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,980 ft^3/s (56.1 m^3/s) Jan. 25, 1975, gage height, 8.48 ft (2.585 m), from floodmark, from rating curve extended above 150 ft^3/s (4.25 m^3/s) on basis of slope-area measurement of peak flow; minimum, 0.30 ft^3/s (0.008 m^3/s) July 15, 1975 (result of temporary dam construction upstream).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 134 ft^3/s (3.79 m^3/s) Mar. 8, gage height, 2.09 ft (0.637 m), no peak above base of 290 ft^3/s (8.21 m^3/s); minimum, 0.33 ft^3/s (0.009 m^3/s) July 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	2.8	2.8	3.5	3.8	30	69	8.6	7.8	1.0	.67	1.7
2	1.1	2.8	2.5	3.5	3.8	28	68	9.4	8.2	1.0	.67	1.9
3	1.1	2.8	2.5	3.5	3.5	32	69	10	7.1	1.0	.71	1.9
4	1.1	2.5	2.5	3.3	3.1	31	80	12	6.7	1.1	.67	1.8
5	1.1	2.8	2.5	3.2	3.1	45	85	11	6.1	1.1	.67	1.7
6	1.0	2.5	2.5	3.1	3.1	82	87	9.4	5.5	1.0	.67	1.6
7	1.0	2.5	2.8	3.0	2.8	115	92	9.0	5.2	.96	.76	1.5
8	1.0	2.5	3.1	2.8	2.8	112	89	8.2	5.2	.96	.76	1.5
9	1.0	2.5	3.3	2.8	3.1	115	71	8.2	4.6	.90	.71	1.5
10	1.0	2.8	3.1	2.8	3.1	86	58	9.0	4.0	.90	.71	1.4
11	1.1	2.8	3.1	3.0	3.5	63	51	11	3.5	.90	.67	1.4
12	1.1	2.8	3.1	3.4	3.5	53	46	11	3.3	.90	.64	1.3
13	1.1	2.8	3.1	4.0	4.0	45	48	11	3.3	.85	.67	1.3
14	1.1	2.8	2.8	4.0	3.8	39	43	9.9	3.1	.71	.67	1.3
15	1.1	3.5	2.8	4.6	3.5	35	37	9.4	2.8	.85	.71	1.2
16	1.2	3.3	2.8	6.4	3.5	32	37	9.4	2.3	.76	.71	1.3
17	1.2	3.5	2.8	9.0	3.3	28	31	9.0	2.1	.80	.71	1.3
18	1.2	4.6	2.8	10	3.3	28	28	9.4	1.9	.90	.67	1.3
19	1.3	4.3	2.8	11	3.3	31	24	8.2	1.8	.90	.67	1.5
20	1.4	3.8	2.5	9.4	3.3	32	22	7.4	1.7	.85	.67	1.8
21	1.4	3.5	2.6	8.6	4.6	31	20	7.1	1.6	.80	.67	1.7
22	1.4	3.5	2.5	7.4	5.5	42	20	6.4	1.5	.76	.71	1.7
23	1.5	3.3	2.8	6.7	5.2	66	19	8.2	1.5	.76	.67	1.7
24	1.5	3.3	2.5	5.8	4.9	57	18	8.2	1.3	.76	1.0	3.1
25	2.1	3.1	3.1	5.5	4.6	50	16	7.1	1.3	.80	1.1	5.2
26	2.3	3.1	4.9	4.9	4.6	47	14	9.0	1.2	.80	2.1	4.6
27	2.1	2.8	5.2	4.6	5.2	60	12	9.9	1.2	.76	1.5	4.3
28	1.9	2.8	4.6	4.3	21	48	11	9.9	1.1	.76	1.2	5.8
29	1.9	2.8	4.3	4.0	---	40	9.9	9.0	1.1	.76	1.1	10
30	1.9	2.8	4.0	3.8	---	35	9.0	8.6	1.1	.76	2.5	14
31	2.1	---	3.8	3.5	---	40	---	7.8	---	.71	2.1	---
TOTAL	42.3	91.7	96.5	155.4	122.8	1578	1283.9	281.7	99.1	26.77	28.44	82.3
MEAN	1.36	3.06	3.11	5.01	4.39	50.9	42.8	9.09	3.30	.86	.92	2.74
MAX	2.3	4.6	5.2	11	21	115	92	12	8.2	1.1	2.5	14
MIN	1.0	2.5	2.5	2.8	2.8	28	9.0	6.4	1.1	.71	.64	1.2
AC-FT	84	182	191	308	244	3130	2550	559	197	53	56	163

CAL YR 1976 TOTAL 14631.23 MEAN 40.0 MAX 440 MIN .85 AC-FT 29020
WTR YR 1977 TOTAL 3888.91 MEAN 10.7 MAX 115 MIN .64 AC-FT 7710

14022500 MCKAY CREEK NEAR PILOT ROCK, OR

LOCATION.--Lat 45°32'57", long 118°46'24", in NW¼SE¼ sec.23, T.1 N., R.32 E., Umatilla County, Hydrologic Unit 17070103, on left bank 500 ft (152 m) upstream from county road bridge, 5.5 mi (8.8 km) northeast of Pilot Rock, and at mile 8.2 (13.2 km).

DRAINAGE AREA.--180 mi^2 (466 km^2).

PERIOD OF RECORD.--May to August 1921, October 1926 to June 1928, December 1928 to July 1929, October 1929 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1398: 1928-29, 1933, 1940.

GAGE.--Water-stage recorder. Datum of gage is 1,343.60 ft (409.529 m) above mean sea level. See WSP 1318 or 1738 for history of changes prior to Apr. 9, 1941. Apr. 9, 1941, to July 24, 1963, at site 1,000 ft (305 m) downstream at datum 7.92 ft (2.414 m) lower.

REMARKS.--Records good. No regulation. Many small diversions for irrigation above station.

AVERAGE DISCHARGE.--49 years (water years 1927, 1930-77), 98.4 ft^3/s (2.787 m^3/s), 71,290 acre-ft/yr (87.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,400 ft^3/s (210 m^3/s) Jan. 30, 1965, gage height, 8.40 ft (2.560 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 481 ft^3/s (13.6 m^3/s) Apr. 7, gage height, 3.19 ft (0.972 m), no peak above base of 840 ft^3/s (23.8 m^3/s); no flow at times in July and August.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	2.6	2.8	6.1	12	44	156	28	25	.90	.00	1.1
2	1.2	3.1	2.8	6.0	12	44	166	29	25	.90	.00	1.5
3	1.2	3.3	2.7	5.8	12	54	155	32	22	.30	.00	1.7
4	1.3	3.3	2.7	5.6	12	52	185	39	21	.10	.00	1.7
5	1.3	5.3	2.7	5.4	11	63	229	36	18	.30	.00	1.8
6	1.3	6.0	2.7	4.9	11	140	268	32	16	.30	.00	1.8
7	1.3	2.0	2.7	4.7	11	266	333	31	15	.40	.00	1.7
8	1.3	1.7	2.8	4.6	11	284	351	30	14	.10	.00	1.7
9	1.3	1.7	2.9	4.6	10	265	261	29	12	.30	.00	1.6
10	1.3	1.7	3.2	5.0	10	203	184	29	10	.00	.00	1.6
11	1.4	1.7	3.3	5.6	10	146	161	34	9.7	.00	.00	1.5
12	1.4	2.5	3.3	6.6	11	122	150	37	9.0	.00	.00	1.5
13	1.4	2.7	3.8	7.5	11	111	154	37	7.9	.20	.00	1.2
14	1.4	2.9	3.3	8.2	11	94	143	35	7.5	.00	.00	1.2
15	1.4	3.1	3.3	8.0	11	85	131	32	6.2	.00	.00	1.2
16	1.5	3.3	3.3	9.0	10	81	133	31	4.7	.10	.00	1.4
17	1.5	4.4	3.3	11	10	80	118	31	3.7	.10	.00	1.8
18	1.5	5.3	4.2	14	10	77	97	32	2.4	.20	.00	1.9
19	1.5	6.2	4.3	17	10	86	78	29	1.2	.10	.00	1.9
20	1.5	5.9	3.1	18	10	92	72	27	1.1	.00	.00	1.7
21	1.6	6.1	2.8	16	11	93	67	24	1.0	.00	.00	1.7
22	1.6	6.1	3.1	15	12	100	59	22	1.3	.00	.00	1.8
23	1.7	6.1	3.3	15	11	150	61	24	1.4	.00	.00	2.0
24	2.2	5.1	3.7	14	11	143	62	27	1.4	.00	.00	2.2
25	2.3	2.2	4.7	13	12	124	61	24	1.3	.00	.00	2.3
26	2.3	2.6	5.9	12	12	118	54	25	1.2	.00	.10	2.8
27	2.6	2.8	6.1	13	13	129	46	32	.70	.00	.00	2.6
28	2.8	2.9	6.1	12	20	118	41	32	.80	.00	.00	3.4
29	2.5	2.8	6.1	12	---	99	35	31	.60	.00	.00	4.7
30	2.5	2.8	6.1	12	---	86	31	29	.70	.10	.40	7.2
31	2.5	---	6.1	12	---	85	---	27	---	.00	.00	---
TOTAL	51.7	108.2	117.2	303.6	318	3634	4042	937	241.80	4.40	.50	62.2
MEAN	1.67	3.61	3.78	9.79	11.4	117	135	30.2	8.06	.14	.016	2.07
MAX	2.8	6.2	6.1	18	20	284	351	39	25	.90	.40	7.2
MIN	1.1	1.7	2.7	4.6	10	44	31	22	.60	.00	.00	1.1
AC-FT	103	215	232	602	631	7210	8020	1860	480	8.7	1.0	123

CAL YR 1976 TOTAL 38716.90 MEAN 106 MAX 1310 MIN 1.1 AC-FT 76790
WTR YR 1977 TOTAL 9820.60 MEAN 26.9 MAX 351 MIN .00 AC-FT 19480

14023000 MCKAY RESERVOIR NEAR PENDLETON, OR

LOCATION.--Lat 45°36'28", long 118°47'30", in SE¼ sec.34, T.2 N., R.32 E., Umatilla County, Hydrologic Unit 17070103, on Bureau of Reclamation land, near right end of McKay Dam on McKay Creek, 4.0 mi (6.4 km) south of Pendleton, and at mile 4.9 (7.9 km).

DRAINAGE AREA.--186 mi^2 (482 km^2).

PERIOD OF RECORD.--December 1927 to current year.

REVISED RECORDS.--WSP 1154: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 0.16 ft (0.049 m) above mean sea level. Prior to Nov. 6, 1973, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by gravel-fill dam with concrete facing, completed in 1926; storage began in 1927. Usable capacity, 73,830 acre-ft (91.0 hm^3), between gage heights 1,182.0 ft (360.27 m), floor of trashrack structure, and 1,322.0 ft (402.95 m) top of spillway gates. Dead storage, about 6 acre-ft (7,400 m^3), included in records. Water is used for irrigation of land along McKay Creek and Umatilla River.

COOPERATION.--Capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 73,840 acre-ft (91.0 hm^3) June 9, 1950, gage height, 1,322.0 ft (402.95 m); no usable contents Sept. 7, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 31,400 acre-ft (38.7 hm^3) June 8, 9, gage height, 1,276.91 ft (389.202 m); minimum, 1,430 acre-ft (1.76 hm^3) Aug. 23, 24, gage height, 1,208.69 ft (368.409 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	1,242.78	12,240	-
Oct. 31	1,241.81	11,820	-420
Nov. 30	1,242.12	11,970	+150
Dec. 31	1,242.96	12,330	+360
CAL YR 1976	-	-	-19,960
Jan. 31	1,245.10	13,290	+960
Feb. 28	1,246.78	14,060	+770
Mar. 31	1,261.52	21,730	+7,670
Apr. 30	1,274.42	29,700	+7,970
May 31	1,276.61	31,190	+1,490
June 30	1,258.20	19,670	-11,520
July 31	1,232.56	8,080	-11,590
Aug. 31	1,209.06	1,480	-6,600
Sept.30	1,209.77	1,580	+100
WTR YR 1977	-	-	-10,660

14023500 MCKAY CREEK NEAR PENDLETON, OR

LOCATION.--Lat 45°36'34", long 118°47'55", in SE¼NW¼ sec.34, T.2 N., R.32 E., Umatilla County, Hydrologic Unit 17070103, on right bank 35 ft (11 m) upstream from diversion dam, 0.2 mi (0.3 km) downstream from McKay Dam, 4.5 mi (7.2 km) south of Pendleton, and at mile 4.7 (7.6 km).

DRAINAGE AREA.--186 mi^2 (482 km^2).

PERIOD OF RECORD.--November 1918 to May 1919, October 1919 to September 1923, October 1924 to September 1927, November 1927 to September 1943, April 1944 to October 1947 (irrigation seasons only), March 1948 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1154: Drainage area. WSP 1398: 1923.

GAGE.--Water-stage recorder. Concrete control since Mar. 23, 1928. Datum of gage is 1,163.71 ft (354.699 m) above mean sea level (Bureau of Reclamation bench mark). See WSP 1318 or 1738 for history of changes prior to Nov. 16, 1948.

REMARKS.--Records good. Flow completely regulated since 1927 by McKay Reservoir (see station 14023000). Many diversions for irrigation above station. Since 1932, records have excluded flow in Elder ditch which, since 1953, has diverted not over 1.5 ft^3/s (0.042 m^3/s) at station for irrigation during season and up to 1 ft^3/s (0.03 m^3/s) seepage from reservoir, for stock water at other times.

AVERAGE DISCHARGE.--40 years (water years 1933-43, 1949-77), 93.1 ft^3/s (2.637 m^3/s), 67,450 acre-ft/yr (83.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 3,250 ft^3/s (92.0 m^3/s) Feb. 10, 1921, gage height, 4.4 ft (1.34 m), site and datum then in use, from rating curve extended above 1,200 ft^3/s (34.0 m^3/s); no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 365 ft^3/s (10.3 m^3/s) July 19, 20, gage height, 1.48 ft (0.451 m); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	.00	.00	.00	.00	.00	.00	9.5	8.0	306	146	.00
2	73	.00	.00	.00	.00	.00	.00	9.5	8.0	306	135	.00
3	52	.00	.00	.00	.00	.00	.00	9.5	8.0	302	133	.00
4	.00	.00	.00	.00	.00	.00	.00	9.5	8.0	302	133	.00
5	.00	.00	.00	.00	.00	.00	.00	11	8.0	235	138	.00
6	.00	.00	.00	.00	.00	.00	.00	11	8.0	115	158	.00
7	.00	.00	.00	.00	.00	.00	.00	9.5	8.0	104	158	.00
8	.00	.00	.00	.00	.00	.00	5.9	9.5	8.0	104	146	.00
9	.00	.00	.00	.00	.00	.00	9.5	9.5	113	104	140	.00
10	.00	.00	.00	.00	.00	.00	9.5	8.0	221	104	138	.00
11	.00	.00	.00	.00	.00	.00	9.5	8.0	225	104	143	.00
12	.00	.00	.00	.00	.00	.00	9.5	8.0	225	102	152	.00
13	.00	.00	.00	.00	.00	.00	9.5	8.0	225	102	152	.00
14	.00	.00	.00	.00	.00	.00	9.5	8.0	225	102	135	.00
15	.00	.00	.00	.00	.00	.00	9.5	7.0	249	102	128	.00
16	.00	.00	.00	.00	.00	.00	9.5	7.0	290	104	130	.00
17	.00	.00	.00	.00	.00	.00	9.5	7.0	306	111	140	.00
18	.00	.00	.00	.00	.00	.00	11	8.0	306	174	138	.00
19	.00	.00	.00	.00	.00	.00	12	9.5	302	298	138	.00
20	.00	.00	.00	.00	.00	.00	12	9.5	302	360	140	.00
21	.00	.00	.00	.00	.00	.00	12	8.0	298	355	140	.00
22	.00	.00	.00	.00	.00	.00	12	8.0	298	350	138	.00
23	.00	.00	.00	.00	.00	.00	13	8.0	298	278	94	.00
24	.00	.00	.00	.00	.00	.00	12	8.0	282	140	.00	.00
25	.00	.00	.00	.00	.00	.00	8.0	8.0	270	143	.00	.00
26	.00	.00	.00	.00	.00	.00	9.5	8.0	267	138	.00	.00
27	.00	.00	.00	.00	.00	.00	11	8.0	278	143	.00	.00
28	.00	.00	.00	.00	.00	.00	11	8.0	294	149	.00	.00
29	.00	.00	.00	.00	---	.00	11	8.0	290	146	.00	.00
30	.00	.00	.00	.00	---	.00	9.5	8.0	298	149	.00	.00
31	.00	---	.00	.00	---	.00	---	8.0	---	149	.00	---
TOTAL	227.00	.00	.00	.00	.00	.00	235.40	264.5	5926.0	5681	3193.00	.00
MEAN	7.32	.000	.000	.000	.000	.000	7.85	8.53	198	183	103	.000
MAX	102	.00	.00	.00	.00	.00	13	11	306	360	158	.00
MIN	.00	.00	.00	.00	.00	.00	.00	7.0	8.0	102	.00	.00
AC-FT	450	.00	.00	.00	.00	.00	467	525	11750	11270	6330	.00

CAL YR 1976 TOTAL 44829.00 MEAN 122 MAX 596 MIN .00 AC-FT 88920
WTR YR 1977 TOTAL 15526.90 MEAN 42.5 MAX 360 MIN .00 AC-FT 30800

14026000 UMATILLA RIVER AT YOAKUM, OR

LOCATION.--Lat 45°40'40", long 119°02'00", in SW¼ sec.2, T.2 N., R.30 E., Umatilla County, Hydrologic Unit 17070103, at left bank on downstream side of highway bridge, 0.5 mi (0.8 km) northeast of Yoakum, 2.5 mi (4.0 km) downstream from abandoned Furnish Reservoir, 12.0 mi (19.3 km) downstream from Birch Creek, and at mile 37.7 (60.7 km).

DRAINAGE AREA.--1,280 mi^2 (3,320 km^2), approximately.

PERIOD OF RECORD.--May 1903 to current year. Published as "above Furnish Reservoir, near Yoakum" October 1916 to September 1934.

REVISED RECORDS.--WSP 794: 1906(M). WSP 1398: 1904-6, 1908-9, 1922-23, 1926, 1936.

GAGE.--Water-stage recorder. Datum of gage is 768.21 ft (234.150 m) above mean sea level. See WSP 1318 or 1738 for history of changes prior to Oct. 21, 1948.

REMARKS.--Records good. Slight regulation by Furnish Reservoir 1910-34, capacity, 3,900 acre-ft (4.81 hm^3) prior to filling with silt. Flow regulated to some extent since 1927 by McKay Reservoir (see station 14023000). Many diversions for irrigation above station.

AVERAGE DISCHARGE.--74 years, 670 ft^3/s (18.97 m^3/s), 485,400 acre-ft/yr (598 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,000 ft^3/s (566 m^3/s) May 30, 1906, gage height, about 15.0 ft (4.57 m), site and datum then in use, from floodmarks, from rating curve extended above 6,600 ft^3/s (187 m^3/s); minimum, 12 ft^3/s (0.34 m^3/s) Aug. 10-12, 1908, Aug. 4, 1910.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,790 ft^3/s (79.0 m^3/s) Apr. 8, gage height, 5.14 ft (1.567 m), no peak above base of 3,600 ft^3/s (102 m^3/s); minimum, 45 ft^3/s (1.27 m^3/s) Sept. 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	233	109	94	105	117	226	529	400	304	364	170	109
2	220	109	94	100	117	300	624	400	304	364	159	88
3	210	107	94	98	117	325	559	435	292	364	162	81
4	194	107	92	96	115	312	630	457	277	364	159	74
5	170	104	92	92	115	308	1050	430	258	355	156	67
6	153	104	90	88	115	368	1460	386	240	255	182	62
7	140	102	94	84	115	591	1830	364	223	230	185	57
8	125	102	98	78	115	686	2360	355	210	220	179	54
9	115	100	100	74	113	716	1890	355	210	210	159	56
10	107	98	100	72	113	724	1420	364	329	197	153	56
11	100	98	98	74	111	578	1170	386	333	188	153	53
12	92	98	96	78	111	469	1040	391	329	182	164	47
13	88	98	96	84	109	420	1100	382	325	173	167	46
14	83	96	96	94	107	373	1010	368	325	167	156	46
15	79	96	96	105	107	329	878	350	329	164	148	47
16	75	96	96	120	107	308	844	329	364	162	142	47
17	74	96	96	140	107	300	804	329	382	207	153	50
18	74	96	96	160	107	277	724	329	373	135	156	54
19	72	96	94	170	107	292	624	329	368	296	153	54
20	72	96	94	175	107	300	541	316	373	368	162	62
21	72	96	92	180	107	296	505	296	368	364	153	62
22	72	96	90	170	111	289	499	292	368	364	153	65
23	72	96	90	160	117	346	578	300	359	342	150	70
24	72	96	88	150	125	517	693	342	355	191	70	70
25	72	96	90	145	130	481	756	316	333	185	46	77
26	77	96	105	140	132	440	716	312	325	182	59	87
27	122	96	110	135	135	451	617	355	329	170	62	85
28	120	96	110	130	140	505	523	350	350	176	60	90
29	117	94	110	125	---	469	457	346	350	176	59	102
30	113	94	105	120	---	420	425	337	355	176	88	117
31	111	---	105	117	---	400	---	316	---	173	115	---
TOTAL	3496	2964	3001	3659	3229	12816	26856	11017	9640	7464	4233	2035
MEAN	113	98.8	96.8	118	115	413	895	355	321	241	137	67.8
MAX	233	109	110	180	140	724	2360	457	382	368	185	117
MIN	72	94	88	72	107	226	425	292	210	135	46	46
AC-FT	6930	5880	5950	7260	6400	25420	53270	21850	19120	14800	8400	4040

CAL YR 1976 TOTAL 282867 MEAN 773 MAX 4910 MIN 72 AC-FT 561100
WTR YR 1977 TOTAL 90410 MEAN 248 MAX 2360 MIN 46 AC-FT 179300

NOTE.--No gage-height record Dec. 26 to Jan. 30.

14032000 BUTTER CREEK NEAR PINE CITY, OR

LOCATION.--Lat 45°32'40", long 119°18'40", in SW¼ sec.22, T.1 N., R.28 E., Morrow County, Hydrologic Unit 17070103, on right bank 0.5 mi (0.8 km) downstream from Mattlock Canyon, 6.0 mi (9.7 km) southeast of Pine City, 15 mi (24 km) southwest of Echo, and at mile 8.4 (13.5 km).

DRAINAGE AREA.--291 mi^2 (754 km^2).

PERIOD OF RECORD.--April to June 1928, November 1928 to June 1929, October 1929 to September 1930, January 1931 to September 1932, February to June 1933, October 1933 to September 1941, January to June 1942, October 1942 to current year. Prior to October 1945, monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1218: 1950(M).

GAGE.--Water-stage recorder. Altitude of gage is 1,400 ft (427 m) by barometer. Prior to Oct. 1, 1944, at datum 1.1 ft (0.34 m) higher and Oct. 1, 1944, to Sept. 6, 1949, at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good. No regulation. Several small diversions for irrigation above station. Water is diverted into headwaters of Butter Creek from Fivemile Creek, a tributary of Camas Creek in John Day River basin, for irrigation below station.

AVERAGE DISCHARGE.--45 years (water years 1930, 1932, 1934-41, 1943-77), 25.1 ft^3/s (0.711 m^3/s), 18,180 acre-ft/yr (22.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,800 ft^3/s (108 m^3/s) Feb. 21, 1949, gage height, 12.4 ft (3.78 m), present datum, from floodmark, from rating curve extended above 440 ft^3/s (12.5 m^3/s) on basis of computation of peak flow over dam; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 108 ft^3/s (3.06 m^3/s) Apr. 8, gage height, 2.75 ft (0.838 m), no peak above base of 200 ft^3/s (5.66 m^3/s); no flow July 31 to Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	4.4	5.5	6.4	6.8	6.0	18	20	9.2	.66	.00	.26
2	2.3	3.8	5.5	6.8	6.8	7.6	20	23	9.2	.54	.00	.26
3	2.3	3.8	6.4	6.0	6.8	10	21	28	10	.58	.00	.26
4	2.5	4.1	7.2	6.4	6.4	10	34	28	8.0	.54	.00	.26
5	2.3	4.4	6.8	5.2	6.4	8.8	42	25	7.2	.62	.00	.24
6	2.5	4.4	6.8	4.9	6.4	8.8	42	21	6.8	.58	.00	.22
7	2.6	4.4	6.8	4.7	6.4	9.6	52	20	5.7	.62	.00	.22
8	2.6	4.4	6.8	4.6	6.4	11	72	21	4.9	.58	.00	.20
9	2.6	4.4	7.2	4.7	6.4	12	64	19	4.7	.58	.00	.11
10	2.6	4.4	7.2	5.0	6.4	13	50	20	5.5	.50	.00	.17
11	2.5	4.4	7.2	6.0	6.4	12	45	24	4.9	.46	.00	.20
12	2.5	4.9	7.2	7.0	6.4	12	34	26	4.7	.46	.00	.22
13	2.5	4.9	7.2	8.0	6.8	12	34	27	4.4	.34	.00	.22
14	2.5	4.9	7.2	8.5	6.8	11	36	25	4.4	.34	.00	.22
15	2.5	5.2	7.2	9.0	7.2	11	36	23	5.7	.42	.00	.20
16	2.5	5.5	6.8	10	7.2	11	37	22	4.4	.44	.00	.22
17	2.3	5.7	6.8	12	7.2	12	36	19	3.3	.45	.00	.26
18	2.5	5.7	6.8	14	7.2	12	32	19	3.1	.43	.00	.28
19	2.5	5.5	6.8	8.4	6.8	12	26	18	3.1	.38	.00	.30
20	2.8	5.5	7.2	8.0	7.2	11	23	15	2.6	.28	.00	.30
21	3.0	5.5	6.8	8.0	7.2	11	22	13	2.5	.24	.00	.28
22	3.0	5.7	6.8	7.6	7.2	11	22	12	2.1	.22	.00	.28
23	3.0	5.7	6.8	7.2	7.2	12	23	12	1.8	.22	.00	.30
24	3.1	5.7	6.8	7.2	7.2	16	26	14	1.4	.17	.00	.42
25	3.3	6.0	7.2	7.2	6.4	14	31	12	1.1	.15	.00	.50
26	3.3	5.7	7.2	9.2	6.0	14	31	12	.88	.15	.00	.50
27	3.8	5.5	7.2	7.2	6.4	15	28	13	.79	.20	.00	.50
28	4.4	5.2	7.2	6.8	6.4	16	24	13	.79	.17	.00	.62
29	4.1	5.7	7.2	6.4	---	16	23	12	.66	.08	.00	.79
30	3.8	5.7	6.8	6.0	---	16	23	11	.70	.05	.30	.70
31	3.6	---	6.8	6.8	---	16	---	11	---	.00	.34	---
TOTAL	88.1	151.1	213.4	225.2	188.4	369.8	1007	578	124.52	11.45	.64	9.51
MEAN	2.84	5.04	6.88	7.26	6.73	11.9	33.6	18.6	4.15	.37	.021	.32
MAX	4.4	6.0	7.2	14	7.2	16	72	28	10	.66	.34	.79
MIN	2.3	3.8	5.5	4.6	6.0	6.0	18	11	.66	.00	.00	.11
AC-FT	175	300	423	447	374	733	2000	1150	247	23	1.3	19

CAL YR 1976 TOTAL 8858.84 MEAN 24.2 MAX 200 MIN .30 AC-FT 17570
WTR YR 1977 TOTAL 2967.12 MEAN 8.13 MAX 72 MIN .00 AC-FT 5890

PRINCIPAL DIVERSIONS FROM UMATILLA RIVER BETWEEN YOAKUM AND UMATILLA GAGING STATIONS, OR

The following canals divert water from Umatilla River between Yoakum and Umatilla, in Umatilla County, Hydrologic Unit 17070103:

14027000 FURNISH CANAL NEAR ECHO diverts from right bank of Umatilla River in SW¼SW¼ sec.31, T.3 N., R.30 E., for irrigation in vicinity of Stanfield. Records available March 1921 to current year (prior to October 1929 and March 1935 to September 1937 irrigation seasons only). Monthly figures only for irrigation seasons 1921-25, published in WSP 1318.

14029000 UMATILLA PROJECT FEED CANAL NEAR ECHO diverts from right bank of Umatilla River in SW¼ sec.22, T.3 N., R.29 E., and delivers water to Cold Springs Reservoir, capacity, 52,380 acre-ft (64.4 hm^3) of Bureau of Reclamation. Records available October 1920 to current year (incomplete 1928, 1943-44).

14030000 ALLEN CANAL AT ECHO diverts from right bank of Western Land Canal, 0.5 mi (0.8 km) downstream from headgate of that canal in SW¼ sec.16, T.3 N., R.29 E., for irrigation west of Echo. Records available May 1921 to current year (irrigation seasons only in most years). Monthly figures only October to December 1923, published in WSP 1318. Published as Western Land & Irrigation Co.'s canal at Echo 1921-39.

14030500 WESTERN LAND CANAL NEAR ECHO diverts from left bank of Umatilla River in NE¼ sec.21, T.3 N., R.29 E., for irrigation west of Echo and Stanfield. Gage is 1 mi (2 km) downstream from intake. Records available May 1921 to current year (irrigation seasons only in many years). Published as Western Land & Irrigation Co.'s canal at Echo 1921-39.

14031500 MAXWELL CANAL NEAR HERMISTON diverts from right bank of Umatilla River in SW¼ sec.28, T.4 N., R.28 E., for irrigation near Hermiston; at times it receives water from Cold Springs Reservoir. Records available March 1921 to current year (irrigation seasons only in most years). REVISIONS (WATER YEARS).--WSP 1398: 1921.

14032500 WEST DIVISION MAIN CANAL NEAR UMATILLA diverts from left bank of Umatilla River in SW¼ sec.28, T.5 N., R.28 E., for irrigation near Irrigon and Boardman. Records of monthly figures April 1921 to current year (incomplete October 1925 to March 1927) Published as "Main canal, west division Umatilla project" 1921, 1923. REVISIONS (WATER YEARS).--WSP 1398: 1923.

Water diverted by all of these canals is used for irrigation of lands on both sides of Umatilla River near and below Echo, except that diverted by West Division main canal which is applied to land along Columbia River in vicinity of Irrigon.

Several small canals also divert water between Yoakum and Umatilla, but no records for these were obtained.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

MONTH	FURNISH CANAL	UMATILLA PROJECT FEED CANAL	ALLEN CANAL	WESTERN LAND CANAL	MAXWELL CANAL	WEST DIVISION MAIN CANAL
OCTOBER	444	371	632	2,760	1,110	5,050
NOVEMBER	0	4,880	0	0	0	0
DECEMBER	0	4,430	0	0	0	0
JANUARY	0	2,570	0	0	0	0
FEBRUARY	0	5,770	0	0	0	0
MARCH	2,910	7,690	355	6,020	508	3,570
APRIL	6,500	13,030	1,040	11,890	3,780	8,830
MAY	5,520	4,430	1,030	9,850	2,490	5,850
JUNE	6,240	1,020	499	9,820	1,830	3,730
JULY	5,810	0	1,020	5,560	1,610	3,560
AUGUST	3,800	0	1,160	1,990	1,250	2,810
SEPTEMBER	0	0	340	2,860	1,330	2,430
WTR YR 1977	31,220	44,180	6,070	50,750	13,900	35,820

NOTE.--No gage-height record for months of little or no flow and short periods at other times.

14033500 UMATILLA RIVER NEAR UMATILLA, OR

LOCATION.--Lat 45°54'11", long 119°19'33", in SW¼NW¼ sec.21, T.5 N., R.28 E., Umatilla County, Hydrologic Unit 17070103, on left bank 1.6 mi (2.6 km) downstream from West Division main canal of Umatilla project, 1.2 mi (1.9 km) southeast of Umatilla, and at mile 2.1 (3.4 km).

DRAINAGE AREA.--2,290 mi^2 (5,930 km^2), approximately.

PERIOD OF RECORD.--October 1903 to current year.

REVISED RECORDS.--WSP 794: Drainage area. WSP 1398: 1909, 1911, 1914, 1928, 1935.

GAGE.--Water-stage recorder. Datum of gage is 330.47 ft (100.727 m) above mean sea level. Oct. 21, 1903, to Jan. 25, 1931, nonrecording gage.

REMARKS.--Records good. Some regulation since 1927 by McKay Reservoir (see station 14023000). Many diversions above station for irrigation of lands above and below station; Brownell Canal diverts below station. Diversions since 1908 to Cold Springs Reservoir, an off-channel reservoir, capacity, 52,380 acre-ft (64.6 hm^3).

AVERAGE DISCHARGE.--50 years (water years 1928-77), 441 ft^3/s (12.49 m^3/s), 319,500 acre-ft/yr (394 hm^3/yr). Water years prior to 1928 not included in computation of average discharge owing to increased regulation and diversion since 1927.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,800 ft^3/s (561 m^3/s) Jan. 30, 1965, gage height, 10.75 ft (3.277 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,020 ft^3/s (57.2 m^3/s) Apr. 8, gage height, 4.39 ft (1.338 m), no peak above base of 3,100 ft^3/s (87.8 m^3/s); minimum, 0.14 ft^3/s (0.004 m^3/s) Sept. 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	160	102	89	117	86	1.3	.96	2.4	2.8	3.2	3.0
2	4.2	124	102	91	117	313	1.1	.85	2.2	2.9	3.2	3.0
3	3.7	121	108	89	108	390	2.4	.90	1.8	2.9	3.2	3.0
4	3.6	121	156	89	94	405	2.3	.80	2.0	3.0	3.2	2.9
5	3.6	117	168	86	86	376	37	.75	1.9	2.8	3.2	2.8
6	3.7	117	152	94	86	383	533	.75	1.8	2.8	3.2	2.8
7	3.7	117	149	97	84	458	974	.85	1.8	2.9	3.0	2.6
8	3.7	117	149	94	84	607	1500	.85	1.7	3.0	3.0	2.6
9	7.0	114	134	111	86	542	1430	.80	1.7	3.0	2.9	2.6
10	11	111	105	105	86	405	899	1.1	1.6	3.0	2.9	2.6
11	7.0	114	100	105	89	307	515	.90	1.6	2.9	2.8	2.5
12	3.7	111	97	124	86	172	356	.85	1.6	2.9	2.8	2.5
13	3.7	111	97	141	84	105	313	.96	1.5	2.9	2.8	2.5
14	3.7	111	94	160	79	62	343	.90	1.5	2.8	2.9	2.5
15	3.6	111	94	172	79	48	356	.96	1.4	2.8	2.9	2.3
16	19	111	94	172	84	16	307	.96	1.8	2.9	2.9	2.3
17	52	108	94	181	81	1.5	257	.96	2.8	3.2	2.9	2.3
18	60	108	94	190	79	6.4	117	1.6	2.8	3.3	2.9	2.4
19	77	105	91	218	79	14	60	2.5	2.7	3.3	2.9	2.3
20	84	105	91	223	72	6.7	24	2.4	2.6	3.3	2.9	2.3
21	70	108	91	213	81	2.0	2.5	2.3	2.7	3.3	2.9	2.2
22	58	108	91	203	81	1.9	1.9	2.4	2.8	3.2	2.9	2.2
23	64	105	94	190	84	1.9	1.5	2.6	2.8	3.2	3.0	2.2
24	72	105	91	168	84	1.8	2.0	2.5	2.8	3.0	3.0	1.3
25	131	105	91	149	84	1.8	2.1	2.4	2.7	3.0	2.9	.27
26	164	105	94	134	84	1.8	5.4	2.5	2.7	3.0	2.8	.24
27	181	102	91	131	84	1.5	2.2	2.4	2.7	3.0	2.7	.14
28	160	102	91	127	86	29	1.8	2.4	2.7	3.0	2.4	.35
29	141	102	91	124	---	31	1.4	2.4	2.6	3.0	2.8	.35
30	160	102	91	121	---	2.0	1.1	2.3	2.8	3.2	4.0	.31
31	160	---	91	117	---	1.5	---	2.4	---	3.2	3.0	---
TOTAL	1723.3	3358	3278	4308	2428	4779.8	8050.0	48.20	66.5	93.5	92.1	61.36
MEAN	55.6	112	106	139	86.7	154	268	1.55	2.22	3.02	2.97	2.05
MAX	181	160	168	223	117	607	1500	2.6	2.8	3.3	4.0	3.0
MIN	3.6	102	91	86	72	1.5	1.1	.75	1.4	2.8	2.4	.14
AC-FT	3420	6660	6500	8540	4820	9480	15970	96	132	185	183	122

CAL YR 1976 TOTAL 183089.80 MEAN 500 MAX 4010 MIN 3.1 AC-FT 363200
WTR YR 1977 TOTAL 28286.76 MEAN 77.5 MAX 1500 MIN .14 AC-FT 56110

14034500 WILLOW CREEK AT HEPPNER, OR

LOCATION.--Lat 45°21'02", long 119°32'56", in SE¼NW¼ sec.35, T.2 S., R.26 E., Morrow County, Hydrologic Unit 17070104, on right bank at Heppner, 100 ft (30 m) upstream from Court Street bridge, 800 ft (244 m) southeast of Morrow County courthouse, 0.3 mi (0.5 km) downstream from Balm Fork and at mile 52.2 (84.0 km).

DRAINAGE AREA.--87 mi² (225 km²), approximately.

PERIOD OF RECORD.--May 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,952.73 ft (595.192 m) above mean sea level.

REMARKS.--Records fair. No regulation. Many diversions for irrigation above station. Part of flow of Ditch Creek (John Day River basin) is diverted to Willow Creek above station.

AVERAGE DISCHARGE.--26 years, 18.1 ft³/s (0.513 m³/s), 13,110 acre-ft/yr (16.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 812 ft³/s (23.0 m³/s) May 10, 1957, gage height, 6.15 ft (1.875 m), from rating curve extended above 230 ft³/s (6.51 m³/s); maximum gage height, 6.46 ft (1.969 m) May 25, 1971, backwater from Shobe Canyon; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, about 36,000 ft³/s (1,020 m³/s) June 14, 1903, result of slope-area measurement (see WSP 96). Discharge for flood of Feb. 22, 1949, was 1,700 ft³/s (48.1 m³/s), result of slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 74 ft³/s (2.10 m³/s) Apr. 8, gage height, 2.45 ft (0.747 m), no peak above base of 170 ft³/s (4.81 m³/s); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.63	.46	1.2	1.3	1.3	5.9	7.3	12	2.6	.34	.01	.64
2	.52	.52	1.2	1.2	1.4	5.6	8.6	20	3.7	.21	.08	.07
3	.52	.74	1.1	1.1	1.1	8.4	10	22	3.5	.32	.11	.06
4	.63	1.8	1.1	1.0	.67	6.6	17	18	3.9	.20	.00	.05
5	.52	1.3	1.5	1.0	.65	7.6	30	13	3.7	.17	.02	.05
6	.36	.80	1.7	.95	.65	7.7	37	11	2.8	.15	.07	.04
7	.36	1.1	1.9	.95	.68	8.4	48	11	2.4	.14	.31	.03
8	.30	1.3	2.6	.95	.69	10	58	9.8	1.9	.10	.06	.02
9	.28	1.5	3.1	1.0	.70	11	37	7.7	2.4	.07	.12	.02
10	.26	1.4	3.3	1.2	.71	9.9	23	12	1.8	.07	.51	.03
11	.25	1.2	3.0	1.4	.84	8.9	21	14	1.3	.13	.63	.06
12	.21	1.1	2.8	1.6	.88	9.1	22	18	1.5	.11	.55	.05
13	.25	1.1	2.6	1.7	.99	8.1	24	18	1.8	.09	.22	.01
14	.25	1.1	2.4	1.9	1.5	7.1	23	18	1.7	.07	.08	.01
15	.23	1.1	2.8	2.1	1.8	7.0	22	18	1.8	.08	.08	.00
16	.19	1.8	2.4	2.6	1.6	6.5	25	16	3.3	.08	.07	.00
17	.19	2.0	2.4	3.1	2.0	6.1	23	14	3.3	.07	.04	.01
18	.19	2.6	2.2	3.2	2.0	5.6	21	12	2.5	.07	.06	.01
19	.21	2.2	1.9	3.2	1.5	5.4	17	9.5	2.3	.08	.01	.06
20	.21	1.8	1.0	2.5	.44	4.9	15	8.3	2.0	.07	.05	.00
21	.21	1.8	1.2	2.1	.15	4.7	14	6.7	1.9	.06	.04	.04
22	.21	1.7	1.5	1.9	.52	3.9	13	3.3	1.6	.06	.05	.00
23	.23	1.5	2.2	1.9	.77	3.3	15	6.7	1.1	.05	.02	.01
24	.25	1.5	2.0	1.9	1.3	4.6	17	6.7	.86	.05	.10	.01
25	.26	1.4	2.0	1.6	1.2	4.8	15	5.2	.53	.03	.15	.01
26	2.2	1.4	3.0	1.7	.77	4.5	29	5.4	.38	.01	.12	.01
27	1.3	1.0	2.8	1.6	2.0	4.4	28	6.2	.34	.02	.09	.01
28	.36	.80	1.8	1.4	4.7	5.6	26	5.2	.43	.05	.10	.03
29	.41	1.2	1.4	1.3	---	6.0	24	1.7	.29	.10	.14	.09
30	.41	1.2	1.4	1.3	---	5.4	16	1.3	.24	.10	.13	.30
31	.46	---	1.4	1.3	---	6.1	---	1.8	---	.02	.80	---
TOTAL	12.86	40.42	62.9	51.95	33.51	203.1	685.9	332.5	57.87	3.17	4.82	1.73
MEAN	.41	1.35	2.03	1.68	1.20	6.55	22.9	10.7	1.93	.10	.16	.058
MAX	2.2	2.6	3.3	3.2	4.7	11	58	22	3.9	.34	.80	.64
MIN	.19	.46	1.0	.95	.15	3.3	7.3	1.3	.24	.01	.00	.00
AC-FT	26	80	125	103	66	403	1360	660	115	6.3	9.6	3.4

CAL YR 1976 TOTAL 7077.06 MEAN 19.3 MAX 320 MIN .12 AC-FT 14040
WTR YR 1977 TOTAL 1490.73 MEAN 4.08 MAX 58 MIN .00 AC-FT 2960

14034800 RHEA CREEK NEAR HEPPNER, OR

LOCATION.--Lat 45°15'41", long 119°37'02", in NE¼SE¼ sec.31, T.3 S., R.26 E., Morrow County, Hydrologic Unit 17070104, on right bank 1.3 mi (2.1 km) downstream from Sanford Canyon, 8 mi (13 km) southwest of Heppner, and at mile 25.2 (40.5 km).

DRAINAGE AREA.--120 mi² (311 km²), approximately.

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,320 ft (707 m), from topographic map. Prior to May 28, 1976, at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Records good. No regulation. Many diversions for irrigation above station.

AVERAGE DISCHARGE.--17 years, 17.5 ft³/s (0.496 m³/s), 12,680 acre-ft/yr (15.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,280 ft³/s (36.2 m³/s) June 10, 1969, gage height, 7.05 ft (2.149 m), site and datum then in use, from rating curve extended above 130 ft³/s (3.68 m³/s) on basis of slope-area measurement at gage height 6.72 ft (2.048 m); maximum gage height, 7.41 ft (2.259 m) Dec. 22, 1964, site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 54 ft³/s (1.53 m³/s) Apr. 7, 8, gage height, 1.88 ft (0.573 m), no peak above base of 230 ft³/s (6.51 m³/s); no flow July 22 to Aug. 27, Aug. 29, 30, Sept. 3-18, 20-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.52	1.7	2.7	2.3	2.8	7.7	14	4.9	3.8	.24	.00	.75
2	.76	2.5	2.1	2.2	3.0	5.9	15	8.6	4.0	.28	.00	.03
3	1.1	2.5	2.4	2.3	2.8	7.6	19	7.9	4.0	.24	.00	.00
4	1.0	2.6	2.6	2.4	2.7	5.0	28	2.8	4.0	.16	.00	.00
5	1.0	2.4	2.4	2.1	2.7	6.9	35	2.6	3.5	.15	.00	.00
6	.95	2.3	2.8	2.0	2.6	11	41	2.6	3.7	.36	.00	.00
7	.87	2.3	3.0	1.9	2.7	15	43	2.5	2.9	.23	.00	.00
8	.85	2.2	3.4	1.8	2.7	8.2	41	2.5	2.9	.20	.00	.00
9	.62	2.3	3.5	1.9	3.2	7.9	31	6.0	3.4	.21	.00	.00
10	.09	2.3	3.3	2.0	3.6	6.9	25	9.8	2.7	.28	.00	.00
11	.12	2.4	3.2	2.5	4.5	6.0	22	8.2	1.7	.24	.00	.00
12	.10	2.3	2.8	3.4	3.6	7.1	18	11	2.2	.23	.00	.00
13	.09	2.1	3.2	3.8	4.8	6.3	19	9.8	2.3	.20	.00	.00
14	.12	2.2	2.7	4.3	3.0	6.3	17	9.7	1.9	.18	.00	.00
15	.19	2.4	3.4	4.4	1.7	6.5	15	8.5	2.0	.16	.00	.00
16	.26	3.4	3.1	4.6	2.2	6.9	16	9.2	1.9	.08	.00	.00
17	.21	2.9	3.5	4.9	1.7	6.6	13	8.9	1.6	.03	.00	.00
18	.25	3.3	3.1	5.7	1.8	6.5	12	7.9	1.4	.06	.00	.00
19	.37	3.2	2.3	6.4	1.7	6.1	11	6.4	1.2	.06	.00	.14
20	.38	2.9	1.9	4.8	2.5	6.1	10	4.5	1.2	.05	.00	.00
21	.40	2.7	2.4	4.3	4.0	6.1	9.8	4.5	1.5	.03	.00	.00
22	.65	2.6	3.0	4.0	4.2	6.5	8.3	3.8	1.5	.00	.00	.00
23	.71	2.6	2.8	3.3	2.9	9.5	6.2	4.2	.84	.00	.00	.00
24	.83	2.5	3.3	3.0	2.5	8.6	7.3	4.2	.42	.00	.00	.76
25	1.3	2.5	3.1	2.7	3.4	6.7	7.1	4.2	.33	.00	.00	1.5
26	2.9	2.4	3.5	2.6	5.1	6.9	6.4	4.2	.26	.00	.00	.49
27	2.0	2.0	3.5	2.6	4.7	10	5.7	5.0	.25	.00	.00	.35
28	1.4	2.2	2.4	3.2	7.1	11	4.7	4.2	.20	.00	.06	.22
29	1.4	2.4	2.3	2.4	---	11	3.9	4.2	.21	.00	.00	7.2
30	1.5	2.6	2.3	2.4	---	9.5	3.7	4.5	.22	.00	.00	4.5
31	1.5	---	2.2	2.5	---	11	---	3.8	---	.00	.68	---
TOTAL	24.44	74.7	88.2	98.7	90.4	243.3	508.1	181.1	58.03	3.67	.74	15.94
MEAN	.79	2.49	2.85	3.18	3.23	7.85	16.9	5.84	1.93	.12	.024	.53
MAX	2.9	3.4	3.5	6.4	7.1	15	43	11	4.0	.36	.68	7.2
MIN	.09	1.7	1.9	1.8	1.7	5.0	3.7	2.5	.20	.00	.00	.00
AC-FT	48	148	175	196	179	483	1010	359	115	7.3	1.5	32

CAL YR 1976 TOTAL 5861.03 MEAN 16.0 MAX 253 MIN .00 AC-FT 11630
WTR YR 1977 TOTAL 1387.32 MEAN 3.80 MAX 43 MIN .00 AC-FT 2750

14036000 WILLOW CREEK NEAR ARLINGTON, OR

LOCATION.--Lat 45°45'12", long 120°00'35", in NE¼SW¼ sec.12, T.3 N., R.22 E., Gilliam County, Hydrologic Unit 17070104, on right bank at bridge on discontinued highway, 3.8 mi (6.1 km) downstream from Eightmile Canyon, 10 mi (16 km) east of Arlington, and at mile 3.7 (6.0 km).

DRAINAGE AREA.--850 mi² (2,200 km²), approximately.

PERIOD OF RECORD.--March to July 1906, August 1960 to current year. Records for March to August 1905 at site just upstream from Eightmile Canyon not equivalent owing to diversions and inflow.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 291.26 ft (88.776 m) above mean sea level. Mar. 1 to July 21, 1906, nonrecording gage at site 2.6 mi (4.2 km) upstream at different datum. Aug. 24, 1960, to July 1, 1964, water-stage recorder at site 430 ft (131 m) downstream at same datum.

REMARKS.--Records fair. No regulation. Many diversions for irrigation above station.

AVERAGE DISCHARGE.--17 years, 28.4 ft³/s (0.804 m³/s), 20,580 acre-ft/yr (25.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft³/s (479 m³/s) probably occurred Jan. 14, 1974, gage height, 11.18 ft (3.408 m), from floodmark, from rating curve extended above 1,900 ft³/s (53.8 m³/s) on basis of slope-area measurement at gage height 11.05 ft (3.368 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26 ft³/s (0.74 m³/s) Nov. 5, gage height, 3.35 ft (1.021 m), no peak above base of 400 ft³/s (11.3 m³/s); no flow many days during year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.9	1.4	1.2	1.0	.17	.09	.62	.62	0	.09	1.7
2	.03	2.2	1.2	1.2	2.6	.17	.09	.88	.88	.03	.06	1.7
3	.01	.62	1.2	1.2	2.2	.13	.09	.88	.74	.17	.13	1.2
4	.09	.51	1.2	1.0	2.0	.13	.09	.74	2.0	.22	1.7	.62
5	.62	5.3	1.2	.88	2.6	.13	.09	.51	.51	.09	1.2	.41
6	0	3.2	1.2	.74	2.2	.41	.09	.88	.51	.17	.62	.41
7	.09	1.4	1.2	.88	1.0	.33	.09	1.4	.41	.22	2.9	.41
8	0	1.7	1.2	.88	1.0	.13	.06	2.2	1.7	.41	.74	.62
9	0	2.0	1.2	.92	.88	.03	.06	2.0	1.0	.62	.51	4.8
10	0	2.0	1.0	.80	.88	0	.04	1.2	.74	.22	1.2	4.0
11	0	2.0	1.0	.62	.51	0	0	2.9	.41	0	1.4	3.2
12	0	2.2	1.0	.33	.51	0	0	1.4	.88	0	.88	3.6
13	0	2.2	1.2	.17	.33	0	0	1.0	1.2	.17	.41	4.8
14	0	2.2	1.2	.33	.27	0	.06	.88	.74	.06	.06	.88
15	0	2.2	1.2	.88	.22	0	.09	1.7	0	.13	.33	.27
16	0	2.9	1.2	.88	.27	0	.06	1.7	.17	.74	.62	.22
17	.02	2.2	1.4	2.0	.27	0	.09	.88	.17	.33	.17	.27
18	.09	2.2	1.4	9.0	.27	.17	.13	1.7	.17	.27	.22	.27
19	.17	2.2	1.4	7.4	.17	.27	.13	.74	.17	.41	.74	.27
20	.13	2.2	1.2	3.6	.22	.51	.62	.41	.22	.51	2.2	.22
21	.13	2.2	1.2	3.6	.22	.04	.62	.27	1.2	.51	2.9	.22
22	.09	2.6	1.2	1.4	.13	0	.04	.41	2.6	.51	1.4	.27
23	.09	2.6	1.2	1.0	.13	.03	.09	.74	2.6	.27	3.2	.33
24	.09	2.2	1.2	.88	.13	.09	.51	.74	2.6	.51	.88	.41
25	.22	1.7	1.2	1.2	.13	.09	.41	.17	2.9	.74	.41	.41
26	.74	2.0	1.7	.74	.62	.13	.27	.33	2.2	1.7	2.9	.41
27	.62	2.0	2.0	.74	.13	.09	.33	.22	.51	1.7	.74	.41
28	.74	2.0	1.2	.74	.74	.09	.62	.27	.22	1.0	.88	.33
29	.88	1.7	1.0	.74	---	.09	.74	.88	.41	.22	.62	.33
30	2.6	1.4	1.2	.74	---	.09	.74	.62	.22	.13	1.2	.51
31	2.2	---	1.2	.62	---	.09	---	.04	---	.13	.74	---
TOTAL	11.35	64.73	38.5	47.31	21.63	3.41	6.34	29.31	28.70	12.19	32.05	33.50
MEAN	.37	2.16	1.24	1.53	.77	.11	.21	.95	.96	.39	1.03	1.12
MAX	2.6	5.3	2.0	9.0	2.6	.51	.74	2.9	2.9	1.7	3.2	4.8
MIN	0	.51	1.0	.17	.13	0	0	.04	0	0	.06	.22
AC-FT	23	128	76	94	43	6.8	13	58	57	24	64	66

CAL YR 1976 TOTAL 8183.89 MEAN 22.4 MAX 445 MIN 0 AC-FT 16230
WTR YR 1977 TOTAL 329.02 MEAN .90 MAX 9.0 MIN 0 AC-FT 653

14037500 STRAWBERRY CREEK ABOVE SLIDE CREEK, NEAR PRAIRIE CITY, OR

LOCATION.--Lat 44°20'30", long 118°39'20", in SE¼NW¼ sec.20, T.14 S., R.34 E., Grant County, Hydrologic Unit 17070201, on left bank 100 ft (30 m) upstream from Slide Creek, 8.5 mi (13.7 km) south of Prairie City, and at mile 9.0 (14.5 km).

DRAINAGE AREA.--7.00 mi^2 (18.13 km^2).

PERIOD OF RECORD.--October 1930 to current year. Prior to October 1944, published as "above South Fork, near Prairie City."

REVISED RECORDS.--WSP 1488: 1932-33. WSP 1738: Drainage area.

GAGE.--Water-stage recorder and log control. Datum of gage is 4,909.57 ft (1,496.437 m) above mean sea level.

REMARKS.--Records good. Flow affected by natural storage in Strawberry Lake. No diversion above station.

AVERAGE DISCHARGE.--47 years, 12.7 ft^3/s (0.360 m^3/s), 24.64 in/yr (626 mm/yr), 9,200 acre-ft/yr (11.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 274 ft^3/s (7.76 m^3/s) June 14, 1974, gage height, 2.20 ft (0.671 m), from rating curve extended above 190 ft^3/s (5.38 m^3/s); maximum gage height, 3.23 ft (0.985 m) May 24, 1956 (backwater from logs); minimum discharge, 1.0 ft^3/s (0.028 m^3/s) Mar. 20, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30 ft^3/s (0.85 m^3/s) June 9-11, gage height, 1.63 ft (0.497 m); minimum daily, 1.5 ft^3/s (0.042 m^3/s) Jan. 6, Feb. 1 to Mar. 12, Mar. 16 to Apr. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	2.8	2.6	2.2	1.5	1.5	1.5	8.1	16	12	3.5	2.2
2	3.5	2.8	2.4	2.2	1.5	1.5	1.5	8.5	17	12	3.3	2.2
3	3.5	2.6	2.4	2.2	1.5	1.5	1.7	8.5	17	11	3.3	2.2
4	3.3	2.6	2.4	2.2	1.5	1.5	1.7	8.5	20	11	3.3	2.2
5	3.3	2.8	2.4	1.8	1.5	1.5	1.7	8.5	23	10	3.3	2.2
6	3.3	2.8	2.4	1.5	1.5	1.5	1.8	8.5	25	9.5	3.3	2.0
7	3.3	2.8	2.6	1.7	1.5	1.5	2.2	8.5	27	9.0	3.3	2.0
8	3.3	2.8	2.6	1.9	1.5	1.5	2.8	8.1	29	8.5	3.1	2.0
9	3.3	2.8	2.6	1.7	1.5	1.5	2.6	8.5	30	8.5	3.1	2.0
10	3.2	2.8	2.6	1.7	1.5	1.5	2.4	8.5	30	8.1	3.1	2.0
11	3.1	2.8	2.6	1.8	1.5	1.5	2.6	8.5	30	7.6	2.8	2.0
12	3.1	2.8	2.4	1.8	1.5	1.5	2.6	8.5	28	7.2	2.8	1.8
13	3.1	2.8	2.4	1.8	1.5	1.6	2.8	9.0	27	6.8	2.8	1.8
14	3.1	2.8	2.4	1.8	1.5	1.8	2.8	9.0	24	6.4	3.1	1.8
15	3.3	2.8	2.4	1.8	1.5	1.6	2.8	9.0	23	6.4	2.8	1.8
16	3.3	2.8	2.4	1.7	1.5	1.5	3.1	9.0	22	6.0	2.8	1.8
17	3.2	2.8	2.4	1.7	1.5	1.5	3.1	9.0	20	6.0	2.4	1.8
18	3.1	2.8	2.4	1.7	1.5	1.5	3.1	8.5	19	5.6	2.4	1.8
19	3.1	2.6	2.4	1.7	1.5	1.5	3.1	8.5	18	5.3	2.4	2.0
20	3.1	2.6	2.4	1.7	1.5	1.5	3.1	9.0	18	5.0	2.4	2.0
21	3.1	2.6	2.4	1.7	1.5	1.5	3.1	9.0	17	5.0	2.4	2.0
22	3.1	2.6	2.4	1.7	1.5	1.5	3.5	10	17	4.7	2.2	2.0
23	3.0	2.6	2.4	1.7	1.5	1.5	3.8	11	16	4.7	2.2	2.2
24	3.0	2.6	2.4	1.7	1.5	1.5	4.7	11	15	4.1	2.6	2.4
25	2.8	2.6	2.4	1.7	1.5	1.5	5.6	11	15	4.1	2.4	2.2
26	2.8	2.4	2.2	1.7	1.5	1.5	6.0	12	14	3.8	2.6	2.2
27	2.6	2.0	2.2	1.7	1.5	1.5	6.0	12	14	3.8	2.4	2.2
28	2.6	2.1	2.2	1.7	1.5	1.5	6.4	12	13	3.5	2.4	3.1
29	2.6	2.3	2.2	1.7	---	1.5	6.8	12	13	3.5	2.2	3.1
30	2.6	2.4	2.2	1.8	---	1.5	7.2	12	12	3.5	2.4	3.1
31	2.6	---	2.2	1.8	---	1.5	---	13	---	3.5	2.2	---
TOTAL	95.8	79.4	74.4	55.5	42.0	47.0	102.1	297.2	609	206.1	85.3	64.1
MEAN	3.09	2.65	2.40	1.79	1.50	1.52	3.40	9.59	20.3	6.65	2.75	2.14
MAX	3.5	2.8	2.6	2.2	1.5	1.8	7.2	13	30	12	3.5	3.1
MIN	2.6	2.0	2.2	1.5	1.5	1.5	1.5	8.1	12	3.5	2.2	1.8
CFSM	.44	.38	.34	.26	.21	.22	.49	1.37	2.90	.95	.39	.31
IN.	.51	.42	.40	.29	.22	.25	.54	1.58	3.24	1.10	.45	.34
AC-FT	190	157	148	110	83	93	203	589	1210	409	169	127

CAL YR 1976 TOTAL 4083.4 MEAN 11.2 MAX 63 MIN 2.0 CFSM 1.60 IN 21.70 AC-FT 8100
WTR YR 1977 TOTAL 1757.9 MEAN 4.82 MAX 30 MIN 1.5 CFSM .69 IN 9.34 AC-FT 3490

14038530 JOHN DAY RIVER NEAR JOHN DAY, OR

LOCATION.--Lat 44°25'10", long 118°54'10", in SE¼SE¼ sec.19, T.13 S., R.32 E., Grant County, Hydrologic Unit 17070201, on left bank 800 ft (244 m) downstream from Dog Creek, 2.5 mi (4.0 km) east of John Day, and at mile 251.0 (403.9 km).

DRAINAGE AREA.--386 mi^2 (1,000 km^2).

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,130.56 ft (954.195 m) above mean sea level.

REMARKS.--Records good except those for May to September, which are fair. Some regulation from irrigation ditches upstream. Many diversions above station for irrigation.

AVERAGE DISCHARGE.--9 years, 194 ft^3/s (5.494 m^3/s), 140,600 acre-ft/yr (173 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,830 ft^3/s (165 m^3/s) June 9, 1969, gage height, 10.80 ft (3.292 m), from floodmark; minimum, 3.5 ft^3/s (0.099 m^3/s) Aug. 26-28, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 251 ft^3/s (7.11 m^3/s) June 7, gage height, 4.10 ft (1.250 m), no peak above base of 800 ft^3/s (22.7 m^3/s); minimum daily, 4.5 ft^3/s (0.13 m^3/s) Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	86	92	86	84	93	101	31	58	24	24	23
2	78	86	92	89	84	87	97	65	75	24	23	23
3	84	84	92	89	80	86	99	70	73	23	14	23
4	82	82	92	89	82	87	105	77	73	23	12	23
5	80	82	92	67	82	91	109	78	78	25	11	23
6	77	82	92	38	84	103	115	78	89	27	11	23
7	80	84	98	58	87	103	129	126	135	29	11	23
8	80	84	100	58	99	105	143	115	175	33	11	23
9	71	84	100	68	101	105	135	111	129	33	11	23
10	73	84	98	80	93	99	113	120	113	33	7.6	23
11	75	86	93	95	87	89	109	133	107	29	6.7	23
12	75	86	93	130	91	97	105	148	111	33	4.5	23
13	73	87	93	150	95	91	111	143	113	35	6.7	23
14	73	97	93	145	89	89	105	124	126	34	8.5	23
15	73	95	93	120	86	87	97	126	105	42	9.4	24
16	71	103	95	110	89	86	99	135	95	46	8.0	31
17	70	97	95	100	93	84	97	135	80	45	6.7	40
18	70	95	89	96	91	86	95	129	68	42	7.0	49
19	71	93	80	94	89	87	89	120	58	33	11	44
20	71	91	84	90	89	87	80	105	53	34	12	67
21	71	93	94	87	91	82	77	87	42	30	15	55
22	77	93	94	89	93	84	71	89	36	30	22	48
23	75	91	92	87	86	86	65	111	34	32	22	36
24	75	91	90	78	87	91	61	122	33	33	25	82
25	89	91	94	76	86	78	54	118	31	31	30	82
26	97	87	94	77	87	80	48	140	28	30	34	77
27	86	70	94	73	87	78	42	148	25	32	23	73
28	86	70	90	71	95	84	35	118	24	32	22	82
29	86	88	88	76	---	80	30	99	24	29	22	109
30	84	88	86	84	---	80	26	89	24	31	23	80
31	84	---	82	82	---	82	---	68	---	26	23	---
TOTAL	2407	2630	2854	2732	2487	2747	2642	3358	2215	983	477.1	1301
MEAN	77.6	87.7	92.1	88.1	88.8	88.6	88.1	108	73.8	31.7	15.4	43.4
MAX	97	103	100	150	101	105	143	148	175	46	34	109
MIN	70	70	80	38	80	78	26	31	24	23	4.5	23
AC-FT	4770	5220	5660	5420	4930	5450	5240	6660	4390	1950	946	2580

CAL YR 1976 TOTAL 64237.0 MEAN 176 MAX 706 MIN 22 AC-FT 127400
WTR YR 1977 TOTAL 26833.1 MEAN 73.5 MAX 175 MIN 4.5 AC-FT 53220

14040500 JOHN DAY RIVER AT PICTURE GORGE, NEAR DAYVILLE, OR

LOCATION.--Lat 44°31'15", long 119°37'30", in SW¼ sec.17, T.12 S., R.26 E., Grant County, Hydrologic Unit 17070201, on right bank 0.7 mi (1.1 km) upstream from Rock Creek, 5.5 mi (8.8 km) northwest of Dayville, and at mile 205.1 (330.0 km).

DRAINAGE AREA.--1,680 mi^2 (4,350 km^2), approximately.

PERIOD OF RECORD.--April 1926 to current year. Monthly discharge only April 1926, published in WSP 1318.

REVISED RECORDS.--WSP 1218: 1950. WSP 1348: Drainage area. WSP 1448: 1926, 1928, 1932(M), 1936.

GAGE.--Water-stage recorder. Datum of gage is 2,229.84 ft (679.655 m) above mean sea level. Prior to Oct. 11, 1926, nonrecording gage and Oct. 11, 1926, to Sept. 30, 1930, water-stage recorder at same site at datum 2.50 ft (0.762 m) higher. Oct. 1, 1930, to Aug. 28, 1970, at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good. No regulation. Many diversions for irrigation above station.

AVERAGE DISCHARGE.--51 years, 464 ft^3/s (13.14 m^3/s), 336,200 acre-ft/yr (415 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,170 ft^3/s (231 m^3/s) Dec. 22, 1964, gage height, 14.97 ft (4.563 m); minimum, 1.0 ft^3/s (0.028 m^3/s) for several days in August and September 1930, Aug. 8, 9, 1936, Sept. 9, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 958 ft^3/s (27.1 m^3/s) June 8, gage height, 6.35 ft (1.935 m), from floodmarks, no peak above base of 1,800 ft^3/s (51.0 m^3/s); minimum, 3.9 ft^3/s (0.11 m^3/s) July 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	173	167	165	175	188	219	60	219	48	13	17
2	132	171	171	169	173	188	228	66	202	45	11	14
3	145	169	167	186	169	196	219	87	200	41	11	16
4	150	165	175	180	167	196	252	101	175	35	10	15
5	151	167	175	158	165	192	287	126	165	33	9.0	15
6	164	165	169	67	169	194	314	140	160	31	8.0	14
7	162	162	175	86	173	204	380	167	228	28	7.6	13
8	160	162	184	127	180	213	461	259	686	26	7.6	12
9	153	160	194	116	200	224	501	259	419	23	7.4	13
10	143	162	194	137	196	222	409	331	320	22	7.4	13
11	146	162	184	190	198	204	349	403	279	21	7.4	12
12	145	162	186	261	192	198	306	454	274	21	7.6	12
13	141	164	184	277	190	202	298	482	254	20	7.4	13
14	137	171	180	266	188	192	303	461	269	18	6.7	16
15	132	188	182	235	176	194	274	413	259	17	6.5	16
16	134	196	182	209	175	192	259	409	235	15	6.3	17
17	137	198	184	207	176	186	247	419	224	14	6.5	21
18	138	192	176	200	175	186	226	409	209	14	6.7	24
19	141	188	164	196	165	188	209	367	171	13	6.5	26
20	141	186	153	198	164	186	192	337	141	8.7	6.2	28
21	145	184	162	190	178	180	180	287	137	4.9	6.2	30
22	138	182	188	186	186	182	153	240	127	5.1	6.0	32
23	151	180	184	182	178	190	129	245	104	5.1	5.8	39
24	146	182	180	169	175	204	124	284	84	5.8	6.7	49
25	160	180	175	165	175	204	112	279	71	6.9	7.6	81
26	184	178	186	162	175	198	106	295	67	8.3	8.3	83
27	188	158	186	157	169	196	91	430	63	9.2	9.0	76
28	176	146	178	169	182	202	84	409	60	14	10	83
29	176	155	175	169	---	200	75	364	56	13	14	96
30	178	169	173	169	---	192	64	320	50	13	22	119
31	175	---	162	182	---	190	---	274	---	13	18	---
TOTAL	4688	5177	5495	5530	4984	6083	7051	9177	5908	592.0	273.4	1015
MEAN	151	173	177	178	178	196	235	296	197	19.1	8.82	33.8
MAX	188	198	194	277	200	224	501	482	686	48	22	119
MIN	119	146	153	67	164	180	64	60	50	4.9	5.8	12
AC-FT	9300	10270	10900	10970	9890	12070	13990	18200	11720	1170	542	2010

CAL YR 1976 TOTAL 167495.0 MEAN 458 MAX 1880 MIN 60 AC-FT 332200
WTR YR 1977 TOTAL 55973.4 MEAN 153 MAX 686 MIN 4.9 AC-FT 111000

14042500 CAMAS CREEK NEAR UKIAH, OR

LOCATION.--Lat 45°09'23", long 118°49'10", in SE¼SE¼ sec.3, T.5 S., R.32 E., Umatilla County, Hydrologic Unit 17070202, on right bank 1.2 mi (1.9 km) upstream from Cable Creek, 5.8 mi (9.3 km) east of Ukiah, and at mile 18.7 (30.1 km).

DRAINAGE AREA.--121 mi^2 (313 km^2).

PERIOD OF RECORD.--May 1914 to September 1917, November 1919 to July 1920, November 1920 to June 1924, March 1932 to June 1940 (fragmentary), November 1940 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as "above Cable Creek, near Ukiah" 1914-17, 1919-24.

REVISED RECORDS.--WSP 1448: 1916, 1920, 1922(M), 1924.

GAGE.--Water-stage recorder. Datum of gage is 3,588.61 ft (1,093.808 m) above mean sea level (levels by State Highway Department). May 1, 1914, to June 30, 1924, nonrecording gage and Mar. 1, 1932, to July 2, 1940, water-stage recorder at site 1.2 mi (1.9 km) downstream at different datum.

REMARKS.--Records good except those for period of no gage-height record and winter period, which are fair. No regulation. Diversions for irrigation above station.

AVERAGE DISCHARGE.--41 years (water years 1915-17, 1922-23, 1942-77), 95.0 ft^3/s (2.690 m^3/s), 68,830 acre-ft/yr (84.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,840 ft^3/s (109 m^3/s) Jan. 30, 1965, gage height, 5.21 ft (1.588 m); maximum gage height, 5.24 ft (1.597 m) Feb. 3, 1963 (ice jam); minimum discharge recorded, 1.0 ft^3/s (0.028 m^3/s) Aug. 9, 1932, June 24 to July 2, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 550 ft^3/s (15.6 m^3/s) and maximum discharge, 1,050 ft^3/s (29.7 m^3/s) Apr. 7, gage height, 2.99 ft (0.911 m); minimum, 3.0 ft^3/s (0.085 m^3/s) Aug. 11, 12, but may have been less during period of ice effect Dec. 28 to Mar. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	9.0	7.2	6.2	6.0	13	48	105	88	11	4.0	12
2	8.5	11	7.8	6.0	6.0	13	45	126	88	11	4.3	10
3	10	9.5	8.2	5.6	5.0	12	73	142	77	10	3.7	9.5
4	7.6	8.5	9.4	5.4	4.6	11	153	142	70	13	3.5	9.0
5	6.8	8.1	8.6	4.0	4.8	11	272	131	62	15	3.5	8.5
6	6.4	7.6	8.4	3.2	5.6	12	438	121	55	12	3.5	7.6
7	6.0	7.6	8.8	3.4	5.8	13	636	119	51	11	3.5	7.6
8	6.0	7.2	8.6	3.2	5.6	15	676	121	101	9.5	3.7	7.2
9	5.6	7.2	8.8	3.1	7.4	14	506	129	81	9.5	3.5	7.2
10	5.6	7.2	7.0	3.3	7.0	13	365	136	68	8.5	3.5	7.2
11	5.6	7.2	5.8	3.5	7.4	12	323	150	58	8.1	3.5	7.2
12	5.6	6.8	5.2	6.0	8.4	11	314	179	52	8.5	3.5	6.8
13	5.6	6.0	5.8	7.2	8.8	13	342	170	62	7.6	3.7	6.8
14	5.3	7.2	5.4	7.0	7.2	16	284	153	55	6.8	4.0	6.8
15	5.3	9.0	5.6	6.4	7.4	14	256	136	51	6.4	5.3	6.8
16	5.3	13	5.8	7.0	8.0	14	280	129	43	6.4	5.3	6.4
17	5.3	11	5.2	6.6	7.2	14	241	136	35	6.0	5.0	6.8
18	5.3	10	5.6	7.2	6.8	13	199	131	31	6.8	4.6	6.8
19	5.3	9.0	5.0	6.8	6.4	14	170	119	28	6.8	5.0	7.2
20	5.6	8.6	4.6	6.2	6.8	16	153	107	27	6.4	5.0	7.6
21	5.6	8.4	4.8	6.0	7.4	20	153	101	24	6.0	5.0	9.0
22	5.6	8.2	5.8	5.8	8.2	35	164	94	21	5.6	5.6	10
23	5.6	8.0	6.0	5.8	7.0	54	195	114	20	5.3	5.0	9.0
24	6.0	8.0	5.6	5.6	7.8	47	216	107	18	5.0	6.4	12
25	9.0	7.8	6.2	5.4	8.8	47	216	96	17	5.3	9.0	11
26	12	7.6	6.8	4.1	9.4	55	189	110	15	6.0	17	9.0
27	9.5	3.8	6.0	3.8	10	73	155	126	14	5.6	13	8.5
28	8.1	5.0	5.4	3.9	12	58	134	124	13	5.0	10	12
29	7.6	5.8	5.4	4.0	---	50	121	114	12	4.3	10	17
30	7.6	6.8	5.2	4.4	---	47	112	103	12	4.3	15	13
31	7.6	---	5.0	5.2	---	50	---	94	---	4.0	15	---
TOTAL	205.9	240.1	199.0	161.3	202.8	800	7429	3865	1349	236.7	192.6	265.5
MEAN	6.64	8.00	6.42	5.20	7.24	25.8	248	125	45.0	7.64	6.21	8.85
MAX	12	13	9.4	7.2	12	73	676	179	101	15	17	17
MIN	5.0	3.8	4.6	3.1	4.6	11	45	94	12	4.0	3.5	6.4
AC-FT	408	476	395	320	402	1590	14740	7670	2680	469	382	527

CAL YR 1976 TOTAL 33969.1 MEAN 92.8 MAX 1010 MIN 3.8 AC-FT 67380
WTR YR 1977 TOTAL 15146.9 MEAN 41.5 MAX 676 MIN 3.1 AC-FT 30040

NOTE.--No gage-height record Nov. 17 to Dec. 27.

14044000 MIDDLE FORK JOHN DAY RIVER AT RITTER, OR

LOCATION.--Lat 44°53'20", long 119°08'25", in SW¼NW¼ sec.8, T.8 S., R.30 E., Grant County, Hydrologic Unit 17070203, on left bank 0.2 mi (0.3 km) south of Ritter, 0.8 mi (1.3 km) downstream from Twelvemile Creek, and at mile 14.9 (24.0 km).

DRAINAGE AREA.--515 mi^2 (1,334 km^2).

PERIOD OF RECORD.--October 1929 to current year.

REVISED RECORDS.--WSP 739: 1931. WSP 1218: 1950. WSP 1448: 1930-32, 1937, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,544.56 ft (775.582 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair. No regulation. Many small diversions for irrigation above station.

AVERAGE DISCHARGE.--48 years, 241 ft^3/s (6.825 m^3/s), 174,600 acre-ft/yr (215 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,730 ft^3/s (134 m^3/s) Jan. 30, 1965, gage height, 8.39 ft (2.557 m), from rating curve extended above 2,200 ft^3/s (62.3 m^3/s); maximum gage height, 9.13 ft (2.783 m) Feb. 1, 1963, ice jam; minimum discharge, 0.90 ft^3/s (0.025 m^3/s) Aug. 19, 20, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,000 ft^3/s (28.3 m^3/s) and maximum discharge, 1,270 ft^3/s (36.0 m^3/s) June 7, gage height, 5.18 ft (1.579 m); minimum, 10 ft^3/s (0.28 m^3/s) Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	49	44	41	39	65	97	239	239	35	14	33
2	39	52	48	42	40	60	110	331	242	34	14	30
3	39	53	49	41	41	60	126	306	221	33	15	27
4	41	51	58	39	43	61	189	278	218	40	14	26
5	41	50	59	34	47	55	273	247	221	46	14	24
6	42	49	52	30	50	61	325	226	218	39	13	23
7	42	48	58	32	52	66	406	216	321	34	13	22
8	38	48	58	31	54	80	495	236	513	31	14	21
9	37	48	59	30	54	86	447	223	296	29	15	20
10	37	47	54	32	56	82	309	228	236	27	15	20
11	37	47	44	38	58	67	264	255	203	24	14	21
12	37	47	38	50	63	68	250	287	210	23	13	21
13	39	46	35	54	66	59	267	281	220	21	13	21
14	38	48	40	50	70	60	258	267	200	21	12	20
15	37	54	48	48	75	57	221	244	160	21	12	20
16	38	71	57	50	71	57	228	236	130	20	13	22
17	37	72	50	49	66	60	218	236	110	19	13	24
18	37	61	39	50	66	59	194	236	96	21	11	24
19	37	57	21	52	59	61	175	221	88	22	11	26
20	37	54	22	49	63	61	162	211	84	21	12	31
21	38	52	38	47	63	60	158	203	74	18	12	37
22	37	53	45	48	64	64	165	206	68	17	13	37
23	38	52	48	52	54	92	191	234	62	15	13	37
24	37	51	50	50	59	91	228	250	54	14	15	43
25	42	51	52	47	54	83	273	228	50	16	23	52
26	61	48	50	42	53	81	281	236	47	17	30	44
27	58	26	49	38	54	85	250	302	44	19	39	39
28	52	23	52	33	62	83	234	267	40	18	34	39
29	49	29	50	35	---	80	228	239	37	16	29	52
30	48	40	45	37	---	74	228	221	36	15	30	52
31	48	---	40	39	---	86	---	213	---	14	34	---
TOTAL	1276	1477	1452	1310	1596	2164	7250	7603	4738	740	537	908
MEAN	41.2	49.2	46.8	42.3	57.0	69.8	242	245	158	23.9	17.3	30.3
MAX	61	72	59	54	75	92	495	331	513	46	39	52
MIN	37	23	21	30	39	55	97	203	36	14	11	20
AC-FT	2530	2930	2880	2600	3170	4290	14380	15080	9400	1470	1070	1800

CAL YR 1976 TOTAL 94196 MEAN 257 MAX 1510 MIN 21 AC-FT 186800
WTR YR 1977 TOTAL 31051 MEAN 85.1 MAX 513 MIN 11 AC-FT 61590

14046000 NORTH FORK JOHN DAY RIVER AT MONUMENT, OR

LOCATION.--Lat 44°48'50", long 119°25'50", in SE¼ sec.2, T.9 S., R.27 E., Grant County, Hydrologic Unit 17070202, on right bank just downstream from entrance to canyon, 0.7 mi (1.1 km) downstream from Cottonwood Creek, 0.8 mi (1.3 km) west of Monument, and at mile 15.3 (24.6 km).

DRAINAGE AREA.--2,520 mi^2 (6,530 km^2), approximately.

PERIOD OF RECORD.--March 1925 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 754: 1932(M). WSP 1448: 1927, 1931(M), 1949.

GAGE.--Water-stage recorder. Datum of gage is 1,959.64 ft (597.298 m) above mean sea level. Prior to Nov. 24, 1925, nonrecording gage and Nov. 24, 1925, to Oct. 16, 1928, water-stage recorder at datum 1.10 ft (0.335 m) higher. Oct. 17, 1928, to Sept. 30, 1930, water-stage recorder at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records excellent except those for December and January, which are fair. Very slight regulation by small reservoirs upstream. Many small diversions for irrigation above station.

AVERAGE DISCHARGE.--52 years, 1,217 ft^3/s (34.47 m^3/s), 881,700 acre-ft/yr (1.09 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,400 ft^3/s (946 m^3/s) Jan. 30, 1965, gage height, 18.45 ft (5.624 m), from rating curve extended above 17,000 ft^3/s (481 m^3/s); minimum, 6 ft^3/s (0.17 m^3/s) sometime during period Nov. 2-13, 1936 (result of freezeup); minimum daily, 17 ft^3/s (0.48 m^3/s) Dec. 12, 1932.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,420 ft^3/s (96.9 m^3/s) Apr. 9, gage height, 6.37 ft (1.942 m), no peak above base of 5,300 ft^3/s (150 m^3/s); minimum, 47 ft^3/s (1.33 m^3/s) Aug. 20, 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	155	197	137	152	120	292	474	1370	1110	245	84	169
2	160	207	134	152	130	269	528	1710	1170	229	82	144
3	165	225	137	150	135	257	607	1770	1090	221	78	124
4	170	225	140	110	140	261	878	1720	1050	221	76	108
5	175	207	150	86	145	249	1130	1520	1050	237	73	99
6	180	197	160	80	152	245	1480	1390	1050	249	69	90
7	175	190	193	84	155	301	2040	1300	1160	233	65	84
8	172	187	211	82	160	432	2990	1300	1890	211	65	78
9	166	184	241	82	181	534	3010	1300	1480	190	65	76
10	160	181	233	82	190	540	2230	1470	1170	175	65	73
11	157	181	190	94	207	402	1910	1690	1020	166	62	71
12	155	178	169	110	218	345	1740	1950	1020	155	59	73
13	155	175	126	150	225	340	1890	1810	955	144	56	71
14	155	172	150	170	218	287	1790	1620	1040	139	54	69
15	155	169	155	190	218	283	1580	1490	1010	131	54	69
16	150	218	172	180	221	265	1660	1420	862	124	56	71
17	150	292	184	175	221	269	1600	1380	742	121	61	76
18	150	278	152	180	229	269	1410	1350	663	116	59	84
19	150	241	121	180	225	274	1250	1270	600	113	53	88
20	150	229	84	170	225	278	1150	1180	594	129	48	90
21	147	211	93	150	253	274	1140	1130	564	124	50	101
22	152	200	101	140	261	278	1170	1110	510	108	48	137
23	157	200	125	140	225	390	1380	1160	462	101	48	134
24	160	193	140	130	214	474	1660	1310	420	101	57	142
25	166	184	150	120	207	432	1920	1170	378	101	67	160
26	190	197	160	110	200	408	1940	1140	350	108	95	184
27	229	144	140	105	197	432	1710	1450	325	126	124	166
28	211	104	130	100	233	462	1530	1340	301	134	157	166
29	197	78	135	100	---	402	1460	1240	278	111	134	172
30	190	111	140	105	---	384	1400	1140	261	99	121	229
31	190	---	152	110	---	378	---	1090	---	90	131	---
TOTAL	5194	5755	4705	3969	5505	10706	46657	43290	24575	4752	2316	3398
MEAN	168	192	152	128	197	345	1555	1396	819	153	74.7	113
MAX	229	292	241	190	261	540	3010	1950	1890	249	157	229
MIN	147	78	84	80	120	245	474	1090	261	90	48	69
AC-FT	10300	11420	9330	7870	10920	21240	92540	85870	48740	9430	4590	6740

CAL YR 1976 TOTAL 478065 MEAN 1306 MAX 7530 MIN 78 AC-FT 948200
WTR YR 1977 TOTAL 160822 MEAN 441 MAX 3010 MIN 48 AC-FT 319000

14046500 JOHN DAY RIVER AT SERVICE CREEK, OR

LOCATION.--Lat 44°47'38", long 120°00'20", in NW¼NE¼ sec.18, T.9 S., R.23 E., Wheeler County, Hydrologic Unit 17070204, on left bank 0.2 mi (0.3 km) downstream from bridge on State Highway 207, 0.8 mi (1.3 km) downstream from Service Creek, 0.5 mi (0.8 km) southwest of town of Service Creek, and at mile 156.7 (252.1 km).

DRAINAGE AREA.--5,090 mi^2 (13,200 km^2), approximately.

PERIOD OF RECORD.--March 1925 to September 1926, October 1929 to current year. Monthly discharge only March 1925 to September 1926, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 1,632.42 ft (497.562 m) above mean sea level. See WSP 1738 for history of changes prior to Feb. 24, 1957.

REMARKS.--Records excellent except those for January, which are fair. Very slight regulation by several small reservoirs above station. Many small diversions for irrigation above station.

AVERAGE DISCHARGE.--49 years, 1,815 ft^3/s (51.40 m^3/s), 1,315,000 acre-ft/yr (1.62 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,200 ft^3/s (1,140 m^3/s) Dec. 23, 1964, gage height, 17.85 ft (5.441 m), from rating curve extended above 14,000 ft^3/s (396 m^3/s) on basis of slope-area measurement of peak flow; minimum, 6.0 ft^3/s (0.17 m^3/s) Aug. 23, 24, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,860 ft^3/s (109 m^3/s) Apr. 9, gage height, 6.09 ft (1.856 m), no peak above base of 7,300 ft^3/s (207 m^3/s); minimum, 18 ft^3/s (0.51 m^3/s) Aug. 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	284	400	284	341	357	515	665	1500	1350	252	64	119
2	284	407	314	346	346	556	770	1650	1400	227	56	153
3	308	413	314	346	357	548	824	2040	1390	215	53	150
4	352	426	352	340	352	540	1010	1980	1270	208	53	125
5	388	419	388	310	346	523	1280	1830	1220	208	45	109
6	357	407	441	280	369	507	1720	1660	1230	223	42	99
7	352	400	413	260	357	515	2270	1570	1280	227	39	86
8	346	394	394	240	376	609	3110	1560	2040	204	39	76
9	341	388	419	220	388	738	3600	1610	2640	183	36	71
10	335	388	433	230	426	824	3040	1790	1760	171	30	67
11	319	382	413	260	441	770	2480	2320	1450	156	33	66
12	314	382	352	300	455	637	2240	2530	1270	150	29	62
13	308	382	341	360	462	609	2210	2550	1320	144	29	61
14	308	382	319	420	462	581	2340	2320	1240	136	25	62
15	303	388	352	450	448	548	2050	2080	1280	128	25	61
16	298	407	357	430	455	540	1920	1950	1190	117	24	71
17	298	455	357	410	455	515	2050	1870	1000	104	25	76
18	303	515	352	420	455	515	1830	1830	889	99	23	80
19	303	491	308	400	455	515	1620	1750	781	91	24	93
20	308	462	275	390	448	515	1440	1610	686	86	30	102
21	308	448	279	380	462	515	1350	1490	665	86	27	107
22	314	426	294	370	515	507	1360	1400	609	93	23	130
23	314	419	319	360	507	531	1410	1410	548	82	19	162
24	335	419	352	350	469	675	1720	1590	484	69	22	177
25	341	413	382	340	455	707	2010	1580	448	69	20	197
26	363	400	407	330	441	665	2150	1440	394	89	28	240
27	407	407	433	330	441	646	2050	1650	363	86	48	284
28	433	330	394	340	455	686	1770	1900	325	78	82	279
29	413	289	382	340	---	696	1630	1720	294	107	117	298
30	407	261	376	352	---	646	1570	1560	270	89	128	298
31	400	---	369	341	---	618	---	1440	---	73	114	---
TOTAL	10444	12100	11165	10586	11955	18512	55489	55180	31086	4250	1352	3961
MEAN	337	403	360	341	427	597	1850	1780	1036	137	43.6	132
MAX	433	515	441	450	515	824	3600	2550	2640	252	128	298
MIN	284	261	275	220	346	507	665	1400	270	69	19	61
AC-FT	20720	24000	22150	21000	23710	36720	110100	109400	61660	8430	2680	7860

CAL YR 1976 TOTAL 676919 MEAN 1850 MAX 9100 MIN 183 AC-FT 1343000
WTR YR 1977 TOTAL 226080 MEAN 619 MAX 3600 MIN 19 AC-FT 448400

14047390 ROCK CREEK ABOVE WHYTE PARK, NEAR CONDON, OR

LOCATION.--Lat 45°15'53", long 120°01'15", in NE¼SW¼ sec.36, T.3 S., R.22 E., Gilliam County, Hydrologic Unit 17070204, on left bank 0.2 mi (0.3 km) upstream from Whyte Park, 8.0 mi (12.9 km) northeast of Condon, and at mile 40.8 (65.6 km).

DRAINAGE AREA.--297 mi^2 (769 km^2).

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,714.50 ft (522.580 m) above mean sea level (Soil Conservation Service temporary bench mark).

REMARKS.--Records good. No regulation or diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 351 ft^3/s (9.94 m^3/s) Apr. 9, 1976, gage height, 5.81 ft (1.771 m); minimum, 0.08 ft^3/s (0.002 m^3/s) Aug. 17, 19, 20, 22, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 218 ft^3/s (6.17 m^3/s) Aug. 6, gage height, 5.55 ft (1.692 m), no peak above base of 220 ft^3/s (6.23 m^3/s); minimum, 0.08 ft^3/s (0.002 m^3/s) Aug. 17, 19, 20, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.8	3.8	3.9	3.9	8.3	14	4.1	7.6	.51	.20	.11
2	2.4	2.8	3.9	3.9	4.1	9.0	18	4.3	7.3	.45	.21	.11
3	2.1	2.8	3.9	3.8	3.9	9.0	20	4.6	7.3	.45	.20	.11
4	2.1	2.8	3.8	4.1	3.9	9.0	37	5.0	6.9	.57	.20	.11
5	2.3	2.8	3.8	3.3	4.1	8.3	59	5.0	6.1	.57	.21	.11
6	2.3	2.8	3.6	4.0	4.4	7.9	81	5.3	5.3	.57	5.5	.11
7	2.1	2.9	3.8	4.1	4.4	8.6	71	6.9	4.3	.51	.36	.10
8	2.1	3.0	3.8	4.0	4.4	12	58	7.3	3.8	.40	.18	.10
9	2.1	3.0	4.1	4.0	4.1	16	40	7.3	3.8	.33	.15	.10
10	2.1	3.0	3.9	4.7	4.4	17	31	16	3.5	.33	.14	.10
11	2.1	3.0	4.1	4.5	4.8	16	25	45	3.3	.30	.14	.10
12	2.0	3.0	4.3	5.0	5.3	14	22	45	3.5	.27	.14	.10
13	2.0	3.0	4.6	5.4	5.8	14	19	38	3.2	.27	.12	.10
14	2.0	3.5	4.3	5.6	6.9	13	18	28	3.0	.25	.14	.10
15	1.8	3.6	4.3	5.3	7.6	11	17	24	2.7	.23	.12	.10
16	2.0	3.9	4.3	5.0	7.6	9.8	15	22	2.3	.21	.12	.11
17	2.0	3.9	4.3	5.0	7.6	10	13	21	2.4	.21	.11	.11
18	2.0	4.1	4.1	5.5	7.2	9.4	12	19	2.0	.23	.11	.12
19	2.0	4.3	3.5	5.0	6.9	9.8	11	17	2.0	.23	.11	.12
20	2.1	4.1	3.3	5.5	6.6	9.0	9.8	15	1.8	.20	.10	.14
21	2.1	4.1	3.4	5.3	6.6	9.0	9.4	13	1.7	.20	.11	.14
22	2.1	4.1	3.4	5.0	6.6	9.0	8.3	11	1.3	.20	.10	.14
23	2.1	4.1	3.3	5.0	6.6	9.4	7.3	11	.89	.20	.12	.14
24	2.3	4.6	3.5	5.0	6.3	12	6.3	12	.99	.20	.15	.15
25	2.4	4.6	3.8	5.0	6.3	13	5.8	12	.79	.20	.16	.15
26	2.4	4.3	3.9	4.6	6.1	13	5.0	12	.79	.20	.16	.15
27	2.4	4.1	3.9	4.6	6.1	14	4.8	11	.63	.20	.15	.15
28	2.5	3.6	4.1	3.6	6.6	16	4.3	12	.63	.18	.12	.16
29	2.5	3.6	3.9	3.9	---	16	4.1	11	.57	.20	.11	.18
30	2.5	3.8	3.9	3.8	---	15	3.8	9.4	.57	.20	.12	.16
31	2.7	---	3.9	4.1	---	14	---	8.3	---	.20	.11	---
TOTAL	68.0	106.0	120.5	141.5	159.1	361.5	649.9	462.5	90.96	9.27	9.97	3.68
MEAN	2.19	3.53	3.89	4.56	5.68	11.7	21.7	14.9	3.03	.30	.32	.12
MAX	2.7	4.6	4.6	5.6	7.6	17	81	45	7.6	.57	5.5	.18
MIN	1.8	2.8	3.3	3.3	3.9	7.9	3.8	4.1	.57	.18	.10	.10
AC-FT	135	210	239	281	316	717	1290	917	180	18	20	7.3

CAL YR 1976 TOTAL 11019.12 MEAN 30.1 MAX 305 MIN .23 AC-FT 21860
WTR YR 1977 TOTAL 2182.88 MEAN 5.98 MAX 81 MIN .10 AC-FT 4330

14048000 JOHN DAY RIVER AT MCDONALD FERRY, OR
(National stream-quality accounting network station)

LOCATION.--Lat 45°35'16", long 120°24'30", in NE¼NW¼ sec.11, T.1 N., R.19 E., Sherman County, Hydrologic Unit 17070204, on left bank at McDonald Ferry, 0.8 mi (1.3 km) downstream from Rock Creek, 10 mi (16 km) east of Klondike, and at mile 20.9 (33.6 km).

DRAINAGE AREA.--7,580 mi² (19,600 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1904 to current year. Prior to Oct. 1, 1930, published as "at McDonald."

REVISED RECORDS.--WSP 1094: 1894(M), 1932(M). WSP 1448: 1908-9, 1912, 1916, 1920(M), 1922, 1932.

GAGE.--Water-stage recorder. Datum of gage is 392.27 ft (119.564 m) above mean sea level. Prior to Aug. 30, 1930, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good except those below 10 ft³/s (0.28 m³/s), which are poor. No regulation. Many diversions for irrigation above station.

AVERAGE DISCHARGE.--72 years (water years 1906-77), 1,999 ft³/s (56.61 m³/s), 1,448,000 acre-ft/yr (1.79 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,800 ft³/s (1,210 m³/s) Dec. 24, 1964, gage height, 13.59 ft (4.142 m), from floodmark, from rating curve extended above 11,000 ft³/s (312 m³/s) on basis of slope-area measurement of peak flow; no flow for part of Sept. 2, 1966, Aug. 15 to Sept. 16, 1973, Aug. 13, 14, 19-25, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1894 reached a stage of 12.8 ft (3.90 m), from floodmarks, discharge, 39,100 ft³/s (1,110 m³/s), from rating curve extended above 22,000 ft³/s (623 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,750 ft³/s (106 m³/s) Apr. 10, gage height, 4.73 ft (1.442 m), no peak above base of 6,900 ft³/s (195 m³/s); no flow Aug. 13, 14, 19-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	300	446	350	405	373	446	638	1500	1460	261	48	2.8
2	294	432	305	392	386	432	622	1460	1380	230	43	1.9
3	272	432	280	405	379	467	638	1470	1320	220	45	2.8
4	272	432	300	386	379	519	733	1800	1360	200	45	60
5	277	432	347	373	379	526	807	1860	1290	185	35	113
6	311	446	354	245	386	511	1060	1820	1200	181	30	129
7	360	446	386	230	373	504	1400	1680	1180	167	28	145
8	373	446	453	230	373	497	1900	1580	1160	162	23	124
9	354	432	432	240	386	489	2770	1490	1450	162	13	109
10	347	426	432	250	392	534	3510	1610	2560	162	5.3	91
11	341	419	432	280	392	655	3160	1750	1900	162	2.8	85
12	335	419	453	320	419	751	2520	2090	1520	149	.10	75
13	329	412	453	360	439	707	2250	2350	1330	137	.00	65
14	317	419	426	400	446	613	2100	2520	1270	124	.00	65
15	323	419	379	440	453	561	2240	2300	1210	105	2.6	60
16	323	426	373	460	460	581	2090	2120	1190	98	5.3	51
17	329	426	360	470	453	526	1870	1930	1190	91	2.8	51
18	323	432	386	480	439	511	1960	1840	1070	88	.30	62
19	323	453	379	450	446	497	1860	1790	903	75	.00	68
20	323	519	419	450	439	489	1650	1730	826	65	.00	68
21	329	526	392	450	446	497	1460	1600	742	60	.00	68
22	335	497	272	430	446	504	1340	1490	672	51	.00	62
23	335	482	311	420	453	504	1290	1410	622	40	.00	82
24	335	467	335	410	482	497	1280	1380	565	32	.00	95
25	347	453	354	390	489	504	1450	1390	504	30	.00	121
26	347	453	379	380	460	613	1730	1580	446	28	.40	129
27	366	439	399	360	446	681	1990	1450	399	35	.30	162
28	366	432	419	340	460	647	2010	1380	360	78	.70	200
29	405	432	432	360	---	630	1790	1790	323	88	1.9	250
30	446	432	446	370	---	663	1600	1730	288	51	8.7	311
31	453	---	419	380	---	681	---	1600	---	43	5.3	---
TOTAL	10490	13327	11857	11556	11874	17257	51718	53490	31690	3560	346.50	2908.5
MEAN	338	444	382	373	424	557	1724	1725	1056	115	11.2	97.0
MAX	453	526	453	480	489	751	3510	2520	2560	261	48	311
MIN	272	412	272	230	373	432	622	1380	288	28	.00	1.9
AC-FT	20810	26430	23520	22920	23550	34230	102600	106100	62860	7060	687	5770

CAL YR 1976 TOTAL 695065.00 MEAN 1899 MAX 9510 MIN 190 AC-FT 1379000
WTR YR 1977 TOTAL 220074.00 MEAN 603 MAX 3510 MIN .00 AC-FT 436500

14048000 JOHN DAY RIVER AT MCDONALD FERRY, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1911-12, 1960-68, 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1975 to current year.
WATER TEMPERATURES: October 1962 to September 1968, October 1975 to current year.
SEDIMENT CONCENTRATIONS: October 1962 to September 1968.
SEDIMENT DISCHARGE: October 1962 to September 1968.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 390 micromhos/cm Aug. 12, 1976; minimum daily recorded, 106 micromhos/cm May 26, 1976.
WATER TEMPERATURES: Maximum, 32.0°C Aug. 10, 1968; minimum, 0.0°C on many days during winter months.
SEDIMENT CONCENTRATIONS: Maximum daily, 69,200 mg/l Dec. 22, 1964; minimum daily, 1 mg/l June 18, 19, 27, 1968.
SEDIMENT DISCHARGE: Maximum daily, 3,800,000 tons (3,447,000 tonnes) Dec. 22, 1964; minimum daily, 0.11 ton (0.10 tonne), Aug. 7, 1968.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily recorded, 356 micromhos/cm Sept. 19; minimum daily recorded, 84 micromhos/cm May 8.
WATER TEMPERATURES: Maximum, 33.0°C Aug. 12; minimum, 0.0°C many days in December to February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	TEMPER-ATURE (DEG C)	PH (UNITS)	DIS-SOLVED OXYGEN (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	FECAL COLI-FORM .7UM-MF (COL./100 ML)	FECAL STREP-TOCOCCI KF AGAR (COL. PER 100 ML)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)
OCT												
19...	1200	834	9.0	9.2	11.4	312	28	B14	16	27	13	18
DEC												
01...	1000	411	.2	8.3	15.1	254	B17	20	24	25	11	14
29...	1405	430	1.8	8.5	14.8	267	100	--	26	26	11	15
JAN												
26...	1200	368	.3	8.5	14.9	231	85	160	24	22	9.9	13
MAR												
03...	1200	451	5.5	8.5	11.3	243	83	70	22	22	9.7	13
23...	1200	489	9.9	8.5	11.3	235	B25	53	24	23	9.7	12
APR												
19...	1400	2040	13.1	7.6	10.7	130	B14	22	26	13	5.3	6.5
MAY												
24...	1400	1390	18.0	8.5	--	157	B12	67	27	15	6.4	7.7
JUN												
28...	1300	388	22.9	8.7	9.6	194	76	50	19	21	8.9	11
JUL												
27...	1000	45	24.1	9.1	9.8	282	B26	81	7.7	20	11	20
AUG												
30...	1500	23	22.6	9.1	11.4	274	42	38	21	21	12	25
SEP												
22...	1500	64	19.0	9.2	13.8	337	84	38	13	20	16	29

DATE	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO
OCT												
19...	178	0	10	3.0	.2	.01	.26	.27	.01	120	0	.7
DEC												
01...	150	0	11	2.7	.1	.03	.86	.89	.05	110	0	.6
29...	158	0	11	2.6	.2	.04	.23	.27	.03	110	0	.6
JAN												
26...	141	0	10	2.5	.1	.02	.14	.16	.01	96	0	.6
MAR												
03...	131	2	8.7	2.4	.1	.03	.12	.15	.02	95	0	.6
23...	138	1	8.5	2.5	.1	.01	.34	.35	.04	97	0	.5
APR												
19...	70	0	4.8	1.3	.1	.01	.29	.30	.12	54	0	.4
MAY												
24...	93	0	6.7	1.7	.1	.03	.90	.93	.08	64	0	.4
JUN												
28...	120	1	7.7	2.4	.1	.02	.73	.75	.04	89	0	.5
JUL												
27...	150	0	8.5	3.2	.2	.02	.43	.45	.00	95	0	.9
AUG												
30...	170	4	11	5.8	.2	.05	.69	.74	.03	100	0	1.1
SEP												
22...	190	6	10	5.4	.2	.01	--	--	.02	120	0	1.2

B: RESULTS BASED ON NON-IDEAL COLONY COUNT

14048000 JOHN DAY RIVER AT MCDONALD FERRY, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TUR-BID-ITY (JTU)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	TOTAL ORGANIC CARRON (C) (MG/L)
OCT											
19...	172	177	387	.23	4	10	23	92	9	146	2.2
DEC											
01...	150	164	166	.20	9	15	17	79	20	123	--
29...	173	172	201	.24	5	17	20	86	10	130	--
JAN											
26...	141	153	140	.19	10	14	14	96	7	116	1.3
MAR											
03...	144	146	175	.20	7	13	16	97	5	111	--
23...	152	150	201	.21	10	22	29	92	14	115	--
APR											
19...	96	93	529	.13	30	114	628	87	106	57	5.4
MAY											
24...	104	112	390	.14	9	30	113	88	24	76	--
JUN											
28...	127	132	133	.17	9	12	13	94	3	100	--
JUL											
27...	151	147	18.6	.21	2	--	--	-	80	120	3.1
AUG											
30...	174	187	10.9	.24	1	3	.19	90	9	150	--
SEP											
22...	185	197	32.3	.25	2	3	.52	90	8	170	--

DATE	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)
OCT											
19...	410	10	30	10	1	0	0	0	20	0	0
JAN											
26...	1200	40	20	10	1	1	<10	0	0	0	<50
APR											
19...	3200	140	80	10	1	0	<10	0	10	0	<50
JUL											
27...	350	10	20	0	1	1	<10	1	0	0	<50

DATE	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)
OCT											
19...	0	7	6	7	4	30	10	--	0	.0	.0
JAN											
26...	0	20	2	<100	1	10	0	0	0	.2	.1
APR											
19...	0	10	8	<100	3	20	20	0	0	.6	.0
JUL											
27...	0	20	5	<100	1	40	0	0	0	.0	.0

14048000 JOHN DAY RIVER AT MCDONALD FERRY, OR--Continued

PESTICIDE ANALYSES

DATE	TOTAL ALDRIN (UG/L)	TOTAL LINDANE (UG/L)	TOTAL CHLOR-DANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DI-ELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL ETHION (UG/L)	TOTAL TOX-APHENE (UG/L)	TOTAL HEPTA-CHLOR (UG/L)	TOTAL HEPTA-CHLOR EPOXIDE (UG/L)
DEC , 1976												
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR , 1977												
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY												
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG												
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	TOTAL METH-OXY-CHLOR (UG/L)	TOTAL MALA-THION (UG/L)	TOTAL PARA-THION (UG/L)	TOTAL DI-AZINON (UG/L)	TOTAL METHYL PARA-THION (UG/L)	TOTAL ATRA-ZINE (UG/L)	SIMA-ZINE TOTAL COUL-SON COND. (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)	TOTAL TRI-THION (UG/L)	TOTAL METHYL TRI-THION (UG/L)
DEC , 1976												
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR , 1977												
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY												
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG												
30...	ND	ND	ND	ND	ND	ND	ND	--	--	--	ND	ND

ND: SPECIFICALLY LOOKED FOR BUT NOT DETECTED

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	LENGTH OF EXPO-SURE (DAYS)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	CHLOR-A PERI-PHYTON CHROMO-SPECT-METRIC (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-SPECT-METRIC (MG/M2)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)
OCT						
19...	28	2132	.144	.050	--	--
MAY						
24...	--	17440	--	--	.009	.003

14048000 JOHN DAY RIVER AT MCDONALD FERRY, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 19,76		DEC 1,76		DEC 29,76		JAN 26,77	
TIME	1200		1000		1405		1030	
TOTAL CELLS/ML	1100		860		360		95	
DIVERSITY: DIVISION	0.8		0.7		1.0		0.8	
.CLASS	0.8		0.7		1.0		0.8	
..ORDER	1.7		0.7		1.1		1.2	
...FAMILY	2.6		2.9		2.6		2.5	
....GENUS	2.7		3.1		2.6		2.6	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	16#	17
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	130	12	--	-	--	-	--	-
....OOCYSTIS	22	2	--	-	--	-	--	-
...SCENEDESMACEAE								
....CRUCIGENIA	43	4	--	-	--	-	--	-
....SCENEDESMUS	--	-	94	11	12	3	--	-
..TETRASPORALES								
...PALMELLACEAE								
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	22	2	--	-	9	3	4	4
..ZYGNEMATALES								
...DESMIDIACEAE								
....COSMARIUM	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	460#	41	--	-	3	1	4	4
....STEPHANODISCUS	--	-	--	-	*	0	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	*	0
....COCCONEIS	22	2	31	4	3	1	*	0
....RHOICOSPHENIA	--	-	8	1	*	0	--	-
...CYMBELLACEAE								
....AMPHORA	--	-	--	-	--	-	4	4
....CYMBELLA	22	2	--	-	6	2	*	0
....EPITHEMIA	--	-	110	13	12	3	4	4
....RHOPALODIA	--	-	--	-	--	-	*	0
...DIATOMACEAE								
....DIATOMA	22	2	79	9	34	9	*	0
...FRAGILARIACEAE								
....FRAGILARIA	--	-	--	-	*	0	*	0
....SYNEDRA	--	-	63	7	24	7	8	9
...GOMPHONEMATACEAE								
....GOMPHONEMA	43	4	31	4	9	3	4	4
...NAVICULACEAE								
....AMPHIPLEURA	--	-	--	-	--	-	*	0
....GYROSIGMA	--	-	24	3	*	0	--	-
....NAVICULA	170#	16	280#	33	12	3	8	9
....PINNULARIA	--	-	--	-	--	-	--	-
...NITZSCHIACEAE								
....HANTZSCHIA	--	-	--	-	*	0	*	0
....NITZSCHIA	130	12	79	9	170#	47	41#	43
...SURIRELLACEAE								
....SURIRELLA	--	-	24	3	3	1	*	0
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROCCOCCALES								
...CHROCCOCCAEAE								
....AGMENELLUM	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	--	-	--	-	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	3	1	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	61#	17	--	-
..CHROCCOCCALES								
...CHROCCOCCAEAE								
....GOMPHOSPHAERIA	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	22	2	--	-	--	-	--	-
....PHACUS	--	-	8	1	--	-	--	-
....TRACHELOMONAS	--	-	24	3	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

14048000 JOHN DAY RIVER AT MCDONALD FERRY, OR—Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	MAY 24,77	JUN 28,77	JUL 27,77	SEP 22,77
TIME	1400	1300	1000	1500
TOTAL CELLS/ML	8900	620	510	2700
DIVERSITY: DIVISION	0.0	0.9	1.2	0.6
.CLASS	0.0	0.9	1.2	0.6
..ORDER	1.0	1.8	1.3	0.6
...FAMILY	1.6	2.0	1.9	0.8
....GENUS	1.6	2.0	2.3	0.8

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	--	-	47	2
....KIRCHNERIELLA	--	-	37	6	--	-	16	1
....OOCYSTIS	--	-	--	-	37	7	--	-
...SCENEDESMACEAE								
....CRUCIGENIA	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	19	3	--	-	2400#	87
..TETRASPORALES								
...PALMELLACEAE								
....SPHAEROCYSTIS	--	-	19	3	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....COSMARIUM	--	-	6	1	6	1	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	4100#	46	--	-	--	-	94	3
....STEPHANODISCUS	--	-	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	9	2	--	-
....COCCONEIS	88	1	25	4	48	9	*	0
....RHOICOSPHENIA	88	1	--	-	--	-	--	-
...CYMBELLACEAE								
....AMPHORA	180	2	--	-	--	-	--	-
....CYMBELLA	88	1	--	-	--	-	--	-
....EPITHEMIA	--	-	--	-	34	7	*	0
....RHOPALODIA	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	--	-	11	2	--	-
...FRAGILARIACEAE								
....FRAGILARIA	--	-	--	-	--	-	--	-
....SYNEDRA	--	-	6	1	6	1	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	260	3	--	-	20	4	--	-
...NAVICULACEAE								
....AMPHIPLEURA	--	-	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	--	-	--	-
....NAVICULA	260	3	--	-	9	2	--	-
....PINNULARIA	--	-	6	1	--	-	--	-
...NITZSCHIACEAE								
....HANTZSCHIA	--	-	--	-	--	-	--	-
....NITZSCHIA	3900#	43	--	-	9	2	16	1
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROCCOCCALES								
...CHROCCOCCAEAE								
....AGMENELLUM	--	-	--	-	290#	57	--	-
....ANACYSTIS	--	-	--	-	34	7	160	6
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	260#	41	--	-	--	-
..CHROCCOCCALES								
...CHROCCOCCAEAE								
....GOMPHOSPHAERIA	--	-	250#	40	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	--	-
....PHACUS	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

14048000 JOHN DAY RIVER AT MCDONALD FERRY, OR--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	287	314	255	259	236	228	221	92	125		---	270
2	288	311	261	259	239	224	222	94	129		---	271
3	299	308	264	258	241	224	225	93	135		---	269
4	300	304	---	260	243	226	224	92	141		---	269
5	295	303	---	263	245	230	225	95	144		---	255
6	291	297	---	266	248	233	228	91	138		---	260
7	294	294	---	269	250	236	235	86	121		---	293
8	302	295	---	272	252	238	219	84	117		---	297
9	311	294	---	274	257	237	194	93	112		---	296
10	315	292	---	279	267	233	174	101	117		---	317
11	318	292	---	291	267	235	160	97	130		---	336
12	319	290	---	302	266	241	133	103	129		---	338
13	318	286	---	309	265	239	125	113	133		---	338
14	316	282	---	312	262	240	126	122	149		---	337
15	312	280	---	310	261	239	129	126	164		---	338
16	308	284	---	307	254	234	130	129	178		---	343
17	309	286	---	304	258	223	129	134	194		---	347
18	313	288	---	302	255	221	129	140	192		---	353
19	315	289	---	301	250	221	130	144	---		---	356
20	316	285	---	294	245	224	133	150	---		---	354
21	317	283	---	279	243	229	134	154	---		---	345
22	318	282	---	260	239	230	144	160	---		---	336
23	318	280	---	244	238	234	147	160	---		---	330
24	319	277	---	235	236	235	146	162	---		---	325
25	319	276	---	231	235	240	149	164	---		---	325
26	318	270	---	231	234	246	145	179	---		---	327
27	316	262	---	232	233	247	133	172	---		---	326
28	315	257	---	233	232	242	118	151	---		---	322
29	314	255	266	233	---	238	104	133	---		---	323
30	313	254	262	234	---	235	95	126	---		272	333
31	315	---	261	236	---	228	---	125	---		271	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.5	19.0	12.0	10.5	0.0	0.0	0.5	0.0	1.0	0.0	7.5	5.0
2	19.5	15.0	12.5	11.5	0.5	0.0	0.0	0.0	0.5	0.5	5.5	4.0
3	15.0	12.5	12.5	11.0	0.0	0.0	0.5	0.0	1.0	0.5	6.5	5.0
4	15.0	11.5	---	10.0	0.5	0.0	0.5	0.0	1.0	0.5	8.0	4.5
5	15.5	13.0	---	---	0.5	0.0	0.0	0.0	1.0	0.5	9.0	5.0
6	17.0	13.5	---	---	1.5	0.0	0.0	0.0	1.0	1.0	8.5	7.0
7	16.5	13.5	---	---	4.0	1.5	0.0	0.0	1.0	1.0	8.5	6.5
8	17.0	13.5	---	---	5.0	4.0	0.0	0.0	2.0	1.0	8.0	6.5
9	17.5	14.5	---	---	4.5	3.5	0.0	0.0	3.5	1.0	9.0	6.0
10	17.0	15.0	---	---	4.0	3.0	0.0	0.0	6.5	3.0	8.0	5.0
11	17.5	14.5	---	---	4.0	2.5	0.0	0.0	7.5	5.5	8.5	5.5
12	17.0	14.0	---	---	2.5	1.5	0.0	0.0	9.0	6.5	8.5	7.0
13	16.5	13.5	---	---	3.0	1.5	0.0	0.0	9.5	7.5	8.5	5.5
14	15.5	13.5	---	---	2.0	1.5	0.0	0.0	8.0	5.5	7.0	5.0
15	14.0	11.5	---	---	3.0	1.5	0.0	0.0	8.0	5.0	8.5	4.5
16	13.5	10.5	---	---	2.0	1.5	0.0	0.0	9.0	6.0	8.0	5.5
17	12.5	10.0	---	---	2.0	0.5	---	---	10.0	7.5	8.0	4.5
18	11.0	9.0	---	---	2.5	1.0	---	---	10.0	7.5	8.5	6.0
19	10.5	8.0	---	---	1.5	0.0	---	---	9.5	6.5	9.0	6.5
20	10.0	7.5	---	---	0.0	0.0	---	---	8.0	6.5	9.0	5.5
21	10.0	7.5	---	---	0.0	0.0	---	---	7.0	5.5	10.0	6.5
22	10.5	8.0	---	---	0.0	0.0	---	---	7.0	5.5	12.5	7.5
23	10.0	8.5	---	---	1.0	0.0	---	---	6.5	4.5	11.0	8.5
24	9.5	9.0	---	---	0.5	0.0	---	---	7.5	5.5	10.5	7.0
25	10.5	9.0	---	---	1.0	0.0	---	---	6.5	5.0	11.5	7.5
26	11.0	8.5	---	---	2.5	1.0	---	---	5.5	4.5	11.5	8.0
27	10.5	8.5	---	---	3.5	2.5	1.0	0.0	7.5	4.5	10.0	7.5
28	9.5	8.0	---	---	2.0	1.0	0.5	0.0	7.5	6.5	10.0	6.0
29	9.5	8.0	---	---	1.5	1.5	0.5	0.0	---	---	10.0	6.0
30	9.5	8.0	---	---	1.5	1.0	0.0	0.0	---	---	11.5	7.0
31	11.0	8.0	---	---	1.0	0.0	0.5	0.0	---	---	10.0	7.5
MONTH	21.5	7.5	12.5	10.0	5.0	0.0	1.0	0.0	10.0	0.0	12.5	4.0

14048000 JOHN DAY RIVER AT MCDONALD FERRY, OR—Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.5	7.0	17.0	16.0	18.5	16.5	24.0	19.0	29.5	22.5	26.0	14.5
2	12.0	7.5	17.5	15.0	20.0	15.5	20.5	16.0	30.0	22.5	21.0	15.0
3	14.0	9.0	16.0	13.5	19.0	17.5	20.0	15.5	28.5	22.5	24.0	16.5
4	16.0	11.0	15.0	12.5	19.5	17.0	19.0	14.5	28.5	21.0	23.5	18.5
5	17.0	12.5	15.5	12.0	23.0	17.5	18.0	13.5	29.0	22.0	23.0	19.0
6	18.0	13.5	14.0	12.0	26.0	21.0	20.5	14.0	28.5	21.5	22.5	17.5
7	18.5	15.0	12.5	11.5	26.0	22.5	23.0	17.0	30.0	22.0	21.5	17.5
8	16.0	13.5	15.5	10.0	22.5	20.0	23.5	19.0	30.0	22.5	20.0	15.0
9	14.5	12.0	17.0	13.0	23.5	19.0	20.0	16.5	30.0	21.0	21.0	15.5
10	13.5	11.0	15.5	12.0	23.0	20.0	20.5	14.5	28.5	21.5	22.0	16.0
11	14.0	11.0	15.0	11.0	21.0	19.0	23.0	16.5	31.0	20.5	23.0	16.5
12	14.5	11.0	16.5	12.0	23.5	18.5	20.5	17.0	33.0	21.0	23.0	17.5
13	14.0	11.5	17.0	13.5	25.0	20.0	21.0	15.0	30.5	21.5	24.0	17.0
14	13.5	10.0	16.5	13.5	24.5	21.0	23.5	17.0	29.0	19.0	20.5	17.0
15	14.5	12.0	16.5	13.5	23.5	20.0	24.5	19.0	31.5	19.0	18.5	14.0
16	14.0	12.0	15.5	12.5	25.0	19.5	23.5	19.0	31.0	21.5	19.5	13.5
17	14.0	11.0	16.0	12.5	25.0	21.0	21.5	18.5	31.5	21.0	18.0	13.5
18	13.5	10.5	17.5	13.0	26.0	21.5	22.5	17.0	28.5	20.5	17.0	14.5
19	14.0	10.0	18.0	14.0	23.5	20.5	22.5	16.0	30.0	18.5	18.5	15.0
20	14.0	11.0	19.5	15.0	22.5	19.0	26.0	19.5	30.5	20.0	18.0	14.0
21	14.0	12.0	19.5	16.5	24.0	19.0	25.5	20.0	26.5	20.0	---	---
22	16.5	12.0	19.5	15.5	---	20.0	26.0	19.5	23.0	16.0	---	---
23	17.5	13.5	17.5	14.5	---	---	27.0	20.0	21.0	16.5	---	---
24	19.5	15.0	19.0	15.0	---	---	26.5	22.0	23.5	17.0	---	---
25	19.5	15.5	19.5	15.5	---	---	26.0	21.0	19.0	16.0	---	---
26	18.0	14.0	18.5	16.0	---	---	27.5	20.5	22.0	15.5	---	---
27	18.5	14.5	18.0	15.0	---	---	29.0	21.0	21.5	13.5	---	---
28	18.5	15.0	17.5	14.0	23.0	---	23.0	18.5	23.0	16.0	---	---
29	18.5	15.5	18.5	14.0	22.5	16.5	22.5	17.0	19.0	14.5	---	---
30	17.5	15.5	18.5	15.5	26.0	19.5	26.5	18.0	23.5	15.0	---	---
31	---	---	19.5	17.0	---	---	24.0	20.5	23.0	14.5	---	---
MONTH	19.5	7.0	19.5	10.0	26.0	15.5	24.0	13.5	33.0	13.5	26.0	13.5

14050000 DESCHUTES RIVER BELOW SNOW CREEK, NEAR LA PINE, OR

LOCATION.--Lat 43°48'51", long 121°46'33", in NW¼ sec.28, T.20 S., R.8 E., Deschutes County, Hydrologic Unit 17070301, in Deschutes National Forest, on left bank at flow line of Crane Prairie Reservoir, 20 ft (6 m) downstream from Snow Creek, 300 ft (91 m) upstream from highway bridge, and 17 mi (27 km) northwest of La Pine.

DRAINAGE AREA.--132 mi^2 (342 km^2), including Sparks, Elk, and Mud Lake basins, which have no surface outflow to Deschutes River; hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only October 1937, published in WSP 1318. Published as "near Lapine" 1937-64.

REVISED RECORDS.--WSP 1248: 1951.

GAGE.--Water-stage recorder. Altitude of gage is 4,445 ft (1,355 m), from elevation of Crane Prairie Reservoir when slack water extended to gage. Prior to Sept. 10, 1938, nonrecording gage at site 450 ft (137 m) downstream at different datum.

REMARKS.--Records good. No regulation. Crater Creek Canal diverts water to Tumalo Creek basin from tributaries of Soda Creek. Stream is spring fed and peak discharge may occur several months after the precipitation which caused it.

AVERAGE DISCHARGE.--40 years, 155 ft^3/s (4.390 m^3/s), 112,300 acre-ft/yr (138 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 480 ft^3/s (13.6 m^3/s) Aug. 19, 1974, gage height, 3.17 ft (0.966 m); maximum gage height, 4.12 ft (1.256 m) Jan. 21, 1943 (ice jam); minimum discharge, 40 ft^3/s (1.13 m^3/s) sometime during period Dec. 22, 1959, to Mar. 2, 1960, result of freezeup; minimum daily, 55 ft^3/s (1.56 m^3/s) for many days April to June 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 270 ft^3/s (7.65 m^3/s) Oct. 1, gage height, 1.90 ft (0.579 m); minimum, 70 ft^3/s (1.98 m^3/s) Sept. 16-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	267	219	165	135	107	93	91	85	84	79	78	73
2	267	217	165	138	107	91	89	85	84	79	78	73
3	264	215	165	138	107	91	89	85	84	79	79	73
4	261	213	165	135	107	89	89	85	84	81	79	73
5	258	210	159	135	105	89	89	87	84	79	79	73
6	255	207	156	133	103	89	89	89	84	81	79	73
7	249	204	156	132	103	89	91	89	84	81	79	73
8	243	204	159	131	103	91	91	89	84	81	79	73
9	240	204	159	129	103	93	89	91	84	82	79	73
10	239	201	156	128	103	91	89	93	84	84	79	73
11	239	207	153	128	101	91	89	89	84	84	78	72
12	238	207	153	128	101	91	89	89	84	84	75	72
13	238	204	153	128	99	91	89	87	84	84	76	72
14	237	204	153	125	99	89	87	87	84	82	78	72
15	237	204	150	125	99	89	85	87	82	82	76	72
16	236	201	150	123	97	89	85	87	81	82	76	70
17	236	198	150	123	95	89	84	85	81	82	76	70
18	235	198	145	123	95	89	84	84	82	81	76	70
19	234	192	143	121	95	89	84	84	82	81	78	70
20	234	189	143	119	95	89	84	84	82	81	78	70
21	233	189	143	119	95	89	84	84	81	79	76	70
22	233	186	143	117	93	89	84	85	81	79	76	70
23	232	186	143	117	93	89	84	85	81	79	76	72
24	232	183	140	117	93	87	84	84	79	81	79	73
25	231	183	140	115	93	87	85	84	79	81	76	73
26	231	177	140	113	93	87	85	84	78	81	75	72
27	229	174	140	113	93	91	85	84	78	79	75	72
28	227	174	138	111	93	89	85	84	78	79	73	75
29	225	174	138	111	---	87	85	84	79	79	73	72
30	223	168	138	111	---	89	85	84	79	78	73	72
31	221	---	135	109	---	89	---	84	---	76	73	---
TOTAL	7424	5892	4636	3830	2770	2775	2602	2667	2459	2500	2380	2162
MEAN	239	196	150	124	98.9	89.5	86.7	86.0	82.0	80.6	76.8	72.1
MAX	267	219	165	138	107	93	91	93	84	84	79	75
MIN	221	168	135	109	93	87	84	84	78	76	73	70
AC-FT	14730	11690	9200	7600	5490	5500	5160	5290	4880	4960	4720	4290

CAL YR 1976 TOTAL 67038 MEAN 183 MAX 292 MIN 100 AC-FT 133000
WTR YR 1977 TOTAL 42097 MEAN 115 MAX 267 MIN 70 AC-FT 83500

14050500 CULTUS RIVER ABOVE CULTUS CREEK, NEAR LAPINE, OR

LOCATION.--Lat 43°49'06", long 121°47'40", near line between secs.20 and 29, T.20 S., R.8 E., Deschutes County, Hydrologic Unit 17070301, Deschutes National Forest, on left bank at highway culvert, 2 mi (3 km) upstream from Cultus Creek, and 18 mi (29 km) northwest of La Pine.

DRAINAGE AREA.--16.5 mi² (42.7 km²), hydrologic drainage boundry uncertain owing to ground-water exchange.

PERIOD OF RECORD.--October 1922 to September 1925, October 1937 to current year. Monthly discharge only October 1937, published in WSP 1318. Prior to Oct. 1, 1964, published as "near Lapine."

REVISED RECORDS.--WSP 1448: 1923-25, 1947.

GAGE.--Water-stage recorder and cement bag control. Altitude of gage is 4,450 ft (1,356 m), by barometer. Oct. 1, 1922, to Sept. 30, 1925, nonrecording gage at site 0.5 mi (0.8 km) upstream at different datum.

REMARKS.--Records good. No regulation or diversions above station.

AVERAGE DISCHARGE.--43 years, 63.8 ft³/s (1.807 m³/s), 46,220 acre-ft/yr (57.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 178 ft³/s (5.04 m³/s) May 31, 1956, gage height, 1.04 ft (0.317 m); maximum gage height, 1.32 ft (0.402 m) May 16, 1972 (backwater from Crane Prairie Reservoir); minimum discharge, 26 ft³/s (0.74 m³/s) May 26-31, Nov. 23 to Dec. 4, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 81 ft³/s (2.29 m³/s) Oct. 1, gage height, 0.94 ft (0.287 m); minimum, 34 ft³/s (0.96 m³/s) Sept. 24-26, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	75	69	63	53	52	47	44	44	41	40	37
2	79	73	69	63	53	52	47	44	44	41	39	36
3	79	73	69	63	52	49	47	44	44	41	40	36
4	77	73	69	63	52	49	47	44	44	43	40	37
5	77	73	69	61	52	49	47	44	46	43	40	37
6	77	73	69	61	51	49	47	44	44	41	40	36
7	77	71	67	59	51	49	47	44	44	41	40	36
8	77	71	67	59	51	49	47	46	46	43	40	36
9	75	71	65	59	50	50	47	44	46	43	40	35
10	75	71	65	59	50	50	47	44	46	43	40	35
11	75	71	67	57	50	50	47	44	46	44	41	35
12	75	69	67	57	49	50	47	44	44	44	41	35
13	75	69	65	57	49	50	47	44	44	44	41	35
14	73	69	65	57	49	50	47	44	44	43	41	35
15	73	69	65	59	49	50	46	44	44	43	41	35
16	73	67	65	59	49	49	46	44	44	44	41	35
17	73	67	67	59	49	49	46	43	43	44	41	35
18	73	67	67	59	49	49	44	43	43	44	41	35
19	71	67	65	59	49	49	44	43	41	44	43	35
20	71	67	65	59	50	49	44	43	41	43	41	35
21	71	67	65	59	52	49	44	43	41	43	41	35
22	73	69	63	59	52	49	44	44	41	41	40	35
23	73	69	65	57	52	49	44	44	43	41	40	35
24	75	69	65	57	52	49	43	44	43	40	40	34
25	75	69	65	56	52	49	43	43	41	40	39	34
26	75	69	65	56	52	49	43	43	41	40	39	34
27	75	69	63	56	52	50	44	43	41	40	40	35
28	75	69	63	54	52	49	44	43	41	40	39	35
29	75	69	65	54	---	47	44	43	41	40	39	35
30	75	69	65	53	---	47	44	43	41	40	39	34
31	75	---	63	53	---	47	---	44	---	40	37	---
TOTAL	2323	2094	2043	1806	1423	1527	1365	1355	1296	1302	1244	1057
MEAN	74.9	69.8	65.9	58.3	50.8	49.3	45.5	43.7	43.2	42.0	40.1	35.2
MAX	81	75	69	63	53	52	47	46	46	44	43	37
MIN	71	67	63	53	49	47	43	43	41	40	37	34
AC-FT	4610	4150	4050	3580	2820	3030	2710	2690	2570	2580	2470	2100

CAL YR 1976 TOTAL 27179 MEAN 74.3 MAX 100 MIN 57 AC-FT 53910
WTR YR 1977 TOTAL 18835 MEAN 51.6 MAX 81 MIN 34 AC-FT 37360

14051000 CULTUS CREEK ABOVE CRANE PRAIRIE RESERVOIR, NEAR LA PINE, OR

LOCATION.--Lat 43°49'17", long 121°49'22", in SW¼ sec.19, T.20 S., R.8 E., Deschutes County, Hydrologic Unit 17070301, on left bank 1,000 ft (305 m) upstream from highway bridge, 1.0 mi (1.6 km) downstream from Cultus Lake, and 19 mi (31 km) northwest of La Pine.

DRAINAGE AREA.--33.2 mi² (86.0 km²), hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--March to September 1924 (published as "above Crane Prairie, near Lapine"), October 1937 to current year. Monthly discharge only October 1937 to September 1949, published in WSP 1318. Records for October 1923 to February 1924, published in WSP 594, have been found to be unreliable and should not be used. Published as "near Lapine" 1937-64.

REVISED RECORDS.--WSP 1568: 1957. WRD Oreg. 1973: 1972. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Altitude of gage is 4,545 ft (1,385 m), by barometer. Mar. 1 to Sept. 30, 1924, nonrecording gage at site 100 ft (30 m) upstream at different datum.

REMARKS.--Records good. Some regulation by fish screens at Cultus Lake since 1962. No diversion above station.

AVERAGE DISCHARGE.--40 years (water years 1938-77), 23.0 ft³/s (0.651 m³/s), 16,660 acre-ft/yr (20.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 336 ft³/s (9.52 m³/s) Dec. 25, 1964, gage height, 4.15 ft (1.265 m), from floodmark, from rating curve extended above 90 ft³/s (2.55 m³/s); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25 ft³/s (0.71 m³/s) June 8; maximum gage height, 1.94 ft (0.591 m) Apr. 6, backwater from ice; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	.65	.65	.10	.00	.02	.02	3.8	18	7.9	.30	.00
2	2.0	.65	.65	.10	.00	.02	.02	4.9	18	7.1	.25	.00
3	1.8	.65	.50	.20	.00	.02	.02	6.7	18	6.3	.15	.00
4	1.4	.65	.50	.25	.00	.02	.04	7.5	19	5.9	.06	.00
5	1.4	.65	.40	.20	.00	.02	.15	8.3	19	5.2	.02	.00
6	1.3	.65	.40	.15	.00	.02	8.3	8.8	21	4.5	.01	.00
7	1.1	.65	.40	.10	.00	.02	3.8	8.8	23	4.2	.01	.00
8	1.1	.65	.30	.08	.00	.02	2.2	9.2	24	4.2	.01	.00
9	1.1	.65	.30	.08	.00	.02	1.8	9.7	23	3.5	.00	.00
10	1.1	.50	.30	.08	.00	.02	1.6	11	23	2.9	.00	.00
11	.95	.50	.40	.08	.00	.02	1.6	12	23	2.7	.00	.00
12	.95	.50	.65	.08	.00	.02	1.6	12	22	2.4	.00	.00
13	.80	.65	.50	.08	.00	.02	1.8	13	22	2.0	.01	.00
14	.80	.65	.40	.08	.00	.02	1.8	13	21	1.8	.01	.00
15	.65	.80	.30	.08	.00	.02	1.8	14	21	1.6	.01	.00
16	.65	.80	.25	.06	.01	.02	1.8	14	20	1.4	.01	.00
17	.50	.80	.25	.04	.01	.02	1.6	14	19	1.3	.00	.00
18	.40	.80	.20	.02	.01	.02	1.6	14	18	1.1	.00	.00
19	.40	.80	.20	.02	.01	.01	1.4	14	17	.95	.00	.00
20	.30	.80	.25	.02	.01	.01	1.4	14	16	.80	.00	.00
21	.30	.80	.40	.02	.02	.01	1.4	14	16	.65	.00	.00
22	.25	.65	.30	.02	.01	.02	1.4	14	15	.65	.00	.00
23	.25	.65	.40	.02	.01	.02	1.4	16	15	.50	.00	.00
24	.30	.65	.30	.02	.01	.02	1.6	16	14	.65	.02	.00
25	.65	.65	.25	.02	.01	.02	1.8	17	13	1.4	.02	.00
26	.50	.50	.30	.04	.01	.02	1.8	17	12	1.3	.01	.00
27	.50	.40	.50	.06	.02	.02	2.0	17	11	1.3	.00	.00
28	.50	.35	.30	.06	.06	.02	2.2	18	9.7	1.1	.00	.00
29	.50	.45	.30	.06	---	.02	2.4	18	8.8	.65	.00	.00
30	.50	.60	.20	.06	---	.02	2.9	17	8.3	.50	.00	.00
31	.50	---	.10	.02	---	.02	---	18	---	.40	.00	---
TOTAL	25.25	19.15	11.15	2.30	.20	.59	53.25	394.7	527.8	76.85	.90	.00
MEAN	.81	.64	.36	.074	.007	.019	1.78	12.7	17.6	2.48	.029	.000
MAX	2.0	.80	.65	.25	.06	.02	8.3	18	24	7.9	.30	.00
MIN	.25	.35	.10	.02	.00	.01	.02	3.8	8.3	.40	.00	.00
AC-FT	50	38	22	4.6	.4	1.2	106	783	1050	152	1.8	.00

CAL YR 1976 TOTAL 8331.15 MEAN 22.8 MAX 90 MIN .10 AC-FT 16520
WTR YR 1977 TOTAL 1112.14 MEAN 3.05 MAX 24 MIN .00 AC-FT 2210

14052000 DEER CREEK ABOVE CRANE PRAIRIE RESERVOIR, NEAR LA PINE, OR

LOCATION.--Lat 43°48'48", long 121°50'18", in SE¼SW¼ sec.25, T.20 S., R.7 E., Deschutes County, Hydrologic Unit 17070301, on right bank 150 ft (146 m) downstream from highway bridge, 1.2 mi (1.9 km) downstream from Little Cultus Lake, and 19 mi (31 km) northwest of La Pine.

DRAINAGE AREA.--21.5 mi^2 (55.7 km^2), hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--February to September 1924 (published as "above Crane Prairie, near Lapine"), October 1937 to current year. Monthly discharge only October 1937 to September 1949, published in WSP 1318. Records for October 1923 to January 1924, published in WSP 594, have been found to be unreliable and should not be used. Published as "near Lapine" 1937-64.

REVISED RECORDS.--See PERIOD OF RECORD.

GAGE.--Water-stage recorder and wooden weir control. Altitude of gage is 4,520 ft (1,378 m), by barometer. Feb. 1 to Sept. 30, 1924, nonrecording gage at site 75 ft (23 m) upstream at various datums. Oct. 1, 1937, to Sept. 30, 1938, water-stage recorder at bridge 150 ft (46 m) upstream at different datum. Oct. 1, 1938, to Aug. 13, 1968, water-stage recorder and wooden weir control at present site and datum 0.60 ft (0.183 m) higher.

REMARKS.--Records good except those for November to March, which are poor. No regulation or diversion above station.

AVERAGE DISCHARGE.--40 years (water years 1938-77), 7.58 ft^3/s (0.215 m^3/s), 5,490 acre-ft/yr (6.77 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 200 ft^3/s (5.66 m^3/s), estimated, Dec. 25, 1964; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8.2 ft^3/s (0.23 m^3/s) May 9, gage height, 1.59 ft (0.485 m); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.50	.50	.50	.45	.40	.75	3.6	4.8	.00	.20	.78
2	.00	.60	.50	.50	.40	.25	.70	4.8	4.3	.00	.10	.60
3	.00	.60	.50	.50	.45	.20	.70	5.7	4.2	.00	.00	.20
4	.00	.60	.50	.45	.50	.20	.78	6.9	4.3	.00	.00	.30
5	.10	.60	.50	.40	.50	.20	.86	7.8	4.5	.00	.10	.20
6	.10	.60	.50	.40	.50	.25	.86	8.0	4.8	.00	.00	.00
7	.10	.60	.50	.35	.50	.30	.94	7.5	4.8	.00	.10	.00
8	.10	.50	.50	.30	.50	.60	1.1	7.3	4.5	.00	.20	.00
9	.10	.50	.55	.35	.60	.30	1.2	6.9	4.2	.00	.10	.00
10	.10	.50	.60	.40	.65	.25	1.1	7.3	3.7	.00	.00	.00
11	.10	.40	.60	.45	.70	.50	1.3	7.1	3.3	.00	.00	.00
12	.10	.40	.65	.50	.70	.70	1.3	6.9	3.1	.00	.00	.00
13	.10	.50	.70	.55	.70	.60	1.4	6.5	2.8	.00	.90	.00
14	.10	.50	.70	.55	.60	.55	1.6	6.3	2.7	.00	2.4	.00
15	.10	.94	.70	.50	.50	.60	1.6	6.1	2.3	.00	2.0	.00
16	.10	.94	.70	.50	.50	.65	1.8	6.1	2.0	.00	1.2	.00
17	.10	.94	.70	.50	.40	.65	1.8	6.1	2.0	.00	.10	.00
18	.10	.94	.70	.50	.30	.65	1.6	5.9	1.8	.00	.00	.00
19	.10	.94	.70	.50	.30	.65	1.6	5.5	1.7	.00	.00	.00
20	.10	.86	.70	.45	.20	.70	1.5	5.2	1.4	.00	.00	.00
21	.10	.86	.65	.40	.20	.75	1.4	5.1	1.3	.00	.00	.00
22	.10	.78	.60	.45	.20	.85	1.4	5.1	1.3	.00	.00	.00
23	.10	.78	.50	.50	.20	.75	1.5	5.7	1.2	.00	.00	.00
24	.20	.70	.50	.45	.20	.70	1.6	5.7	1.0	.00	3.0	.20
25	.30	.60	.55	.40	.20	.70	1.6	5.7	1.0	.00	4.3	.20
26	.20	.50	.60	.40	.20	.80	1.7	6.3	.86	.00	4.0	.00
27	.20	.40	.70	.40	.30	.70	1.8	6.3	.50	.30	2.1	.00
28	.20	.40	.70	.40	.60	.65	1.9	6.1	.10	.86	2.4	.60
29	.20	.45	.70	.40	---	.80	2.3	5.9	.10	1.2	2.2	.30
30	.20	.50	.65	.40	---	1.2	2.4	5.4	.10	.86	2.5	.40
31	.20	---	.60	.45	---	.90	---	5.1	---	.60	1.2	---
TOTAL	3.60	18.93	18.75	13.80	12.05	18.00	42.09	189.9	74.66	3.82	29.10	3.78
MEAN	.12	.63	.60	.45	.43	.58	1.40	6.13	2.49	.12	.94	.13
MAX	.30	.94	.70	.55	.70	1.2	2.4	8.0	4.8	1.2	4.3	.78
MIN	.00	.40	.50	.30	.20	.20	.70	3.6	.10	.00	.00	.00
AC-FT	7.1	38	37	27	24	36	83	377	148	7.6	58	7.5

CAL YR 1976 TOTAL 2743.00 MEAN 7.49 MAX 46 MIN .00 AC-FT 5440
WTR YR 1977 TOTAL 428.48 MEAN 1.17 MAX 8.0 MIN .00 AC-FT 850

14052500 QUINN RIVER NEAR LA PINE, OR

LOCATION.--Lat 43°47'03", long 121°50'06", in SW¼NW¼ sec.1, T.21 S., R.7 E., Deschutes County, Hydrologic Unit 17070302, Deschutes National Forest, on left bank at flow line of Crane Prairie Reservoir, 150 ft (46 m) downstream from springs at head of river, and 18 mi (29 km) northwest of La Pine.

PERIOD OF RECORD.--June 1922 to September 1925, October 1937 to current year. Published as "above Crane Prairie Reservoir near Lapine" 1922-25, and as "near Lapine" 1937-64. Monthly discharge only October 1937, published in WSP 1318.

REVISED RECORDS.--WSP 1448: 1939, 1941.

GAGE.--Water-stage recorder and log control. Datum of gage is 4,442.1 ft (1,353.95 m) above mean sea level, based on elevation of Crane Prairie Reservoir when slack water reached station. June 1, 1922, to Sept. 30, 1925, nonrecording gage at site 150 ft (46 m) downstream at different datum.

REMARKS.--Records good. No regulation or diversion above station. Normal flow is entirely from springs 150 ft (46 m) upstream.

AVERAGE DISCHARGE.--43 years, 24.5 ft^3/s (0.694 m^3/s), 17,750 acre-ft/yr (21.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59 ft^3/s (1.67 m^3/s) July 4, 1949, gage height, 1.97 ft (0.600 m); maximum gage height, 3.92 ft (1.195 m) June 25, 1943 (backwater from Crane Prairie Reservoir); practically no flow Nov. 14, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 29 ft^3/s (0.82 m^3/s) Oct. 1-6; maximum gage height, 1.88 ft (0.573 m) Apr. 11 (backwater from Crane Prairie Reservoir); minimum discharge, 6.0 ft^3/s (0.17 m^3/s) Sept. 20-22, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	25	21	18	16	17	17	16	12	11	11	7.4
2	29	25	21	19	16	17	17	15	12	11	11	7.4
3	29	25	21	19	16	18	17	15	12	11	11	6.7
4	29	25	21	18	16	18	17	15	11	11	11	6.7
5	29	25	21	18	16	18	17	15	11	11	11	6.7
6	29	25	21	18	18	18	16	15	11	11	11	6.7
7	28	25	21	18	18	18	16	14	11	11	9.8	6.7
8	28	25	21	18	18	18	16	14	11	11	11	6.7
9	28	25	20	18	18	18	16	14	9.8	11	9.8	6.7
10	28	25	20	18	17	18	16	14	9.8	11	9.8	6.7
11	28	25	20	18	17	18	16	14	9.8	11	9.8	6.7
12	28	25	20	19	16	18	15	14	9.8	11	9.8	6.7
13	28	25	21	19	16	18	15	14	11	11	9.8	6.7
14	28	25	21	19	16	18	15	14	11	11	9.8	6.7
15	28	25	21	19	16	18	15	14	11	11	8.0	6.7
16	27	25	20	19	16	18	15	14	11	11	8.0	6.7
17	27	24	20	19	16	18	15	14	11	11	8.0	6.7
18	27	24	20	18	16	18	16	14	11	11	8.0	6.7
19	26	24	20	18	17	18	16	13	12	11	8.0	6.7
20	26	24	19	17	17	17	15	13	12	11	8.0	6.0
21	26	24	19	17	18	17	15	13	12	11	8.0	6.0
22	26	23	19	17	18	17	15	13	11	11	8.0	6.0
23	26	23	19	17	18	17	15	13	11	11	7.4	6.7
24	26	23	19	17	18	17	15	13	11	11	7.4	6.0
25	25	23	19	17	18	17	15	12	11	11	7.4	6.7
26	25	21	19	17	17	17	15	12	11	11	7.4	6.7
27	25	21	19	17	17	17	15	12	11	11	7.4	6.7
28	25	21	19	17	18	17	16	11	11	11	7.4	6.7
29	25	21	19	17	---	17	16	12	11	11	7.4	6.7
30	25	21	18	17	---	17	16	12	11	11	7.4	6.7
31	25	---	18	17	---	17	---	12	---	11	7.4	---
TOTAL	838	717	617	554	474	544	471	420	331.2	341	276.2	199.6
MEAN	27.0	23.9	19.9	17.9	16.9	17.5	15.7	13.5	11.0	11.0	8.91	6.65
MAX	29	25	21	19	18	18	17	16	12	11	11	7.4
MIN	25	21	18	17	16	17	15	11	9.8	11	7.4	6.0
AC-FT	1660	1420	1220	1100	940	1080	934	833	657	676	548	396

CAL YR 1976 TOTAL 11223.0 MEAN 30.7 MAX 41 MIN 18 AC-FT 22260
WTR YR 1977 TOTAL 5783.0 MEAN 15.8 MAX 29 MIN 6.0 AC-FT 11470

14053000 CHARLTON CREEK ABOVE CRANE PRAIRIE RESERVOIR, NEAR LA PINE, OR

LOCATION.--Lat 43°46'51", long 121°50'06", in NE¼SW¼ sec.1, T.21 S., R.7 E., Deschutes County, Hydrologic Unit 17070301, in Deschutes National Forest, on left bank 3.0 mi (4.8 km) northwest of Crane Prairie Dam and 18.0 mi (29.0 km) northwest of La Pine.

DRAINAGE AREA.--15.6 mi^2 (40.4 km^2), hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--May and June 1923, October 1937 to September 1951, May to September 1952, May to September 1953, May 1954 to September 1955, May 1956 to October 1962, May 1963 to November 1964, April to December 1965, February to November 1966, March 1967 to December 1970, March 1971 to January 1972, March 1972 to current year. Monthly discharge only prior to October 1949, published in WSP 1318. Prior to Oct. 1, 1964, published as "near Lapine."

GAGE.--Water-stage recorder. Datum of gage is 4,458.70 ft (1,359.012 m) above mean sea level. May 1 to June 30, 1923, nonrecording gage at about same site at different datum.

REMARKS.--No regulation or diversion above station.

AVERAGE DISCHARGE.--30 years (water years 1938-51, 1955, 1957-62, 1964, 1968-70, 1973-77), 1.40 ft^3/s (0.040 m^3/s), 1,010 acre-ft/yr (1.25 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54 ft^3/s (1.53 m^3/s) June 12, 1950, gage height, 1.53 ft (0.466 m), from rating curve extended above 27 ft^3/s (0.76 m^3/s); maximum gage height, 2.39 ft (0.728 m) Mar. 9, 1957 (ice jam); no flow for several months each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1964 (discharge not determined) may have exceeded peak of record.

EXTREMES FOR CURRENT YEAR.--No flow during year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
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27												
28												
29					---							
30					---							
31		---			---		---		---			---
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	0	0	0	0	0
MAX	0	0	0	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	0	0

CAL YR 1976 TOTAL 471.81 MEAN 1.29 MAX 17 MIN 0 AC-FT 936
WTR YR 1977 TOTAL 0.00 MEAN .000 MAX .00 MIN 0 AC-FT 0

14053500 CRANE PRAIRIE RESERVOIR NEAR LA PINE, OR

LOCATION.--Lat 43°45'20", long 121°47'00", in SW¼NW¼ sec.16, T.21 S., R.8 E., Deschutes County, Hydrologic Unit 17070301, in Deschutes National Forest, on control structure at Crane Prairie Dam on Deschutes River, 15.0 mi (24.1 km) northwest of La Pine, and at mile 238.3 (383.4 km).

DRAINAGE AREA.--254 mi^2 (658 km^2), hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--November 1922 to November 1935, April to December 1936, April 1937 to current year. Prior to Oct. 1, 1964, published as "near Lapine."

REVISED RECORDS.--WSP 1218: Drainage area. WSP 1318: 1925, 1940-41, 1950. WSP 1448: 1925(M,m), 1940(m), 1950(m).

GAGE.--Water-stage recorder. Datum of gage is 4,400.0 ft (1,341.120 m) above mean sea level (levels by Bureau of Reclamation); gage readings have been adjusted to elevations above mean sea level. Prior to July 13, 1940, nonrecording gage, at site 150 ft (45.7 m) upstream at same datum. July 13, 1940, to Sept. 15, 1966, nonrecording gage, at present site and datum.

REMARKS.--Reservoir originally formed by earthfill dam completed in 1922, reconstructed as rock-faced, earthfill dam in 1940. Capacity, 55,340 acre-ft (68.2 hm^3) between elevation 4,424.0 ft (1,348.44 m) lip of fish-screen structure and 4,445.0 ft (1,354.84 m) crest of spillway. Some dead storage in isolated pools in reservoir at stages below 4,428 ft (1,349.7 m) and natural flow passing through reservoir when outlet gates are open prevents withdrawal of remaining storage to elevation of sill of gates. Crater Creek Canal diverts water to Tumalo Creek basin from tributaries of Soda Creek above station. Released water diverted from Deschutes River near Bend for irrigation near Bend and Redmond.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 60,500 acre-ft (74.6 hm^3) June 5-7, 1943, elevation, 4,446.0 ft (1,355.14 m); no usable contents at times.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 50,270 acre-ft (62.0 hm^3) Apr. 11, elevation, 4,443.96 ft (1,354.519 m); minimum, 13,730 acre-ft (16.9 hm^3) Sept. 12, 13, elevation, 4,434.88 ft (1,351.751 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	4,438.59	27,020	-
Oct. 31	-	a28,490	+1,470
Nov. 30	-	a33,360	+4,870
Dec. 31	4,440.89	36,400	+3,040
CAL YR 1976	-	-	-19,030
Jan. 31	4,442.00	41,230	+4,830
Feb. 28	4,442.86	45,130	+3,900
Mar. 31	4,443.72	49,140	+4,010
Apr. 30	4,442.41	43,090	-6,050
May 31	4,439.07	28,900	-14,190
June 30	4,438.53	26,790	-2,110
July 31	4,436.54	19,390	-7,400
Aug. 31	4,434.96	13,980	-5,410
Sept.30	4,435.71	16,500	+2,520
WTR YR 1977	-	-	-10,520

a Contents interpolated.

14054000 DESCHUTES RIVER BELOW CRANE PRAIRIE RESERVOIR, NEAR LA PINE, OR

LOCATION.--Lat 43°45'13", long 121°46'57", in SW¼NW¼ sec.16, T.21 S., R.8 E., Deschutes County, Hydrologic Unit 17070301, Deschutes National Forest, on left bank 0.1 mi (0.2 km) downstream from Crane Prairie Dam, 15 mi (24 km) northwest of La Pine, and at mile 238.2 (383.3 km).

DRAINAGE AREA.--254 mi² (658 km²), hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--August 1907 to November 1908 and August 1912 to September 1913 (fragmentary), October 1913 to September 1917, February 1922 to current year. Monthly discharge only for some periods, published in WSP 1318. Prior to October 1949, published as "at Crane Prairie, near Lapine." Published as "near Lapine" 1949-64.

REVISED RECORDS.--WSP 1218: Drainage area. WSP 1318: 1929(M).

GAGE.--Water-stage recorder. Datum of gage is 4,419.78 ft (1,347.149 m) above mean sea level (Pacific Power & Light Co. bench mark). Aug. 15, 1907, to Sept. 30, 1917, and Feb. 23 to June 8, 1922, nonrecording gage at site 0.5 mi (0.8 km) upstream at different datums. June 9, 1922, to May 9, 1932, nonrecording gage or water-stage recorder at present site and datum.

REMARKS.--Records good. Flow regulated since 1922 by Crane Prairie Reservoir (see sta 14053500). No diversion above station.

AVERAGE DISCHARGE.--59 years, 214 ft³/s (6.060 m³/s), 155,000 acre-ft/yr (191 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,170 ft³/s (33.1 m³/s) July 28, 1947, gage height, 3.34 ft (1.018 m); minimum, 0.90 ft³/s (0.026 m³/s) Mar. 14-21, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 418 ft³/s (11.8 m³/s) May 12, gage height, 1.97 ft (0.600 m); minimum, 0.90 ft³/s (0.026 m³/s) Mar. 14-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	317	217	150	82	29	22	2.6	282	135	138	239	104
2	317	220	150	82	22	22	2.6	282	135	138	239	104
3	317	220	150	82	22	22	2.6	282	135	138	239	104
4	317	179	150	82	22	18	2.6	286	135	138	239	104
5	317	148	150	82	22	9.4	2.8	339	135	138	236	104
6	314	150	150	80	22	9.4	2.8	414	135	138	236	104
7	314	150	150	80	22	9.4	2.8	410	138	135	236	104
8	314	150	150	80	22	9.4	3.0	410	138	135	233	104
9	310	150	150	80	22	4.6	3.0	410	138	135	227	104
10	310	150	153	80	22	1.4	3.0	410	138	135	227	104
11	310	150	153	80	22	1.4	58	406	138	135	227	104
12	310	150	153	80	22	1.2	185	410	138	191	227	70
13	310	148	153	80	22	1.2	185	414	138	236	230	43
14	310	148	153	80	22	1.0	182	410	138	236	233	43
15	307	150	153	80	22	.90	174	410	138	239	208	43
16	303	150	153	80	22	.90	174	406	138	239	179	43
17	303	150	153	58	22	.90	174	406	138	239	185	43
18	293	153	153	44	22	.90	174	403	138	236	185	43
19	268	153	153	43	22	.90	174	403	138	236	182	43
20	259	153	153	42	22	.90	236	406	138	236	182	43
21	259	153	153	39	22	2.0	289	403	138	239	182	43
22	214	153	153	39	22	3.4	289	403	138	239	182	43
23	217	153	153	39	22	3.0	289	406	138	239	182	43
24	214	150	153	39	22	3.0	289	414	138	233	135	43
25	214	150	153	39	22	3.0	286	286	138	233	104	43
26	214	150	153	39	22	3.0	286	220	138	233	104	43
27	214	150	153	39	22	3.0	286	220	138	233	104	43
28	214	150	116	39	22	3.0	286	220	138	233	104	43
29	214	150	82	39	---	3.0	282	220	138	236	104	44
30	214	150	82	39	---	3.0	282	166	138	242	104	44
31	217	---	82	39	---	2.8	---	135	---	242	104	---
TOTAL	8525	4748	4466	1906	623	170.00	4607.8	10692	4122	6193	5798	1990
MEAN	275	158	144	61.5	22.3	5.48	154	345	137	200	187	66.3
MAX	317	220	153	82	29	22	289	414	138	242	239	104
MIN	214	148	82	39	22	.90	2.6	135	135	135	104	43
AC-FT	16910	9420	8860	3780	1240	337	9140	21210	8180	12280	11500	3950

CAL YR 1976 TOTAL 103047.00 MEAN 282 MAX 600 MIN 82 AC-FT 204400
WTR YR 1977 TOTAL 53840.80 MEAN 148 MAX 414 MIN .90 AC-FT 106800

14054500 BROWN CREEK NEAR LA PINE, OR

LOCATION.--Lat 43°42'57", long 121°48'10", in NE¼SW¼ sec.29, T.21 S., R.8 E., Deschutes County, Hydrologic Unit 17070301, in Deschutes National Forest, on right bank at highway crossing and 15 mi (24 km) northwest of La Pine.

DRAINAGE AREA.--21 mi^2 (54 km^2), approximately, hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--May 1922 to September 1925, July 1938 to current year. Monthly discharge only July 1938 to September 1949, published in WSP 1318. Prior to Oct. 1, 1964, published as "near Lapine."

REVISED RECORDS.--WSP 1448: 1922-24.

GAGE.--Water-stage recorder. Altitude of gage is 4,370 ft (1,332 m), from topographic map. May 24, 1922, to Sept. 30, 1925, nonrecording gage, and July 1, 1938, to Nov. 1, 1945, water-stage recorder, at site 0.4 mi (0.6 km) downstream at different datums. Nov. 2, 1945, to Aug. 25, 1971, water-stage recorder at site 0.8 mi (1.3 km) upstream at datum 4,372.94 ft (1,332.872 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--42 years, 39.4 ft^3/s (1.116 m^3/s), 28,550 acre-ft/yr (35.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 104 ft^3/s (2.95 m^3/s) Aug. 4, 1956, gage height, 1.64 ft (0.500 m); maximum gage height, 2.15 ft (0.655 m) Jan. 2, 1974, backwater from ice or debris; minimum discharge, 16 ft^3/s (0.453 m^3/s) July 22-25, 1941, and at times December 1941 to March 1942.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 51 ft^3/s (1.44 m^3/s) Oct. 25; maximum gage height, 0.74 ft (0.226 m) Oct. 25; minimum discharge, 26 ft^3/s (0.74 m^3/s) July 21-23, July 25 to Aug. 23, Aug. 25-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	48	45	41	37	33	33	39	29	28	26	28
2	50	48	44	41	37	33	33	36	29	28	26	28
3	50	48	44	40	36	33	33	33	29	27	26	28
4	50	47	44	40	36	33	33	32	29	27	26	28
5	49	47	44	40	36	33	36	31	29	27	26	28
6	49	47	44	40	36	33	36	31	29	27	26	28
7	49	47	44	40	36	33	36	31	29	27	26	28
8	49	47	44	40	36	33	36	31	29	27	26	28
9	49	47	44	40	35	33	36	31	29	27	26	28
10	49	47	44	40	35	33	36	33	29	27	26	28
11	49	47	44	39	35	33	38	31	29	27	26	28
12	49	47	44	39	35	33	38	31	29	27	26	28
13	49	47	44	39	35	33	38	31	29	27	26	28
14	48	47	43	39	34	33	38	30	29	27	26	28
15	48	47	43	39	34	33	38	30	29	27	26	28
16	48	47	42	39	34	33	38	30	29	27	26	28
17	48	46	42	39	34	33	38	30	29	27	26	28
18	48	46	42	39	34	33	38	30	28	27	26	29
19	48	46	42	39	34	33	38	30	28	27	26	29
20	48	46	42	39	33	33	38	30	28	27	26	29
21	48	46	42	39	33	33	41	30	28	26	26	29
22	48	46	42	39	33	33	41	30	28	26	26	29
23	48	46	42	38	33	33	41	30	28	26	26	29
24	49	46	42	38	33	33	41	30	28	27	27	29
25	51	46	41	38	33	33	41	30	28	26	26	29
26	48	45	41	38	33	33	41	30	28	26	26	29
27	48	45	41	38	33	33	40	30	28	26	26	29
28	48	45	41	38	33	33	39	29	28	26	26	32
29	48	45	41	37	---	33	38	29	28	26	26	29
30	48	45	41	37	---	33	38	29	28	26	26	29
31	48	---	41	37	---	33	---	29	---	26	27	---
TOTAL	1509	1394	1324	1209	966	1023	1129	957	857	829	808	856
MEAN	48.7	46.5	42.7	39.0	34.5	33.0	37.6	30.9	28.6	26.7	26.1	28.5
MAX	51	48	45	41	37	33	41	39	29	28	27	32
MIN	48	45	41	37	33	33	33	29	28	26	26	28
AC-FT	2990	2760	2630	2400	1920	2030	2240	1900	1700	1640	1600	1700

CAL YR 1976 TOTAL 16386 MEAN 44.8 MAX 51 MIN 41 AC-FT 32500
WTR YR 1977 TOTAL 12861 MEAN 35.2 MAX 51 MIN 26 AC-FT 25510

NOTE.--No gage-height record Dec. 17 to Apr. 22.

14056000 WICKIUP RESERVOIR NEAR LA PINE, OR

LOCATION.--Lat 43°41'02", long 121°41'20", in SW¼NE¼ sec.7, T.22 S., R.9 E., Deschutes County, Hydrologic Unit 17070301, in Deschutes National Forest, in gate-chamber structure at Wickiup Dam on Deschutes River, 9.0 mi (14.5 km) west of La Pine, and at mile 226.8 (364.9 km).

DRAINAGE AREA.--482 mi² (1,250 km²), hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--December 1942 to current year. Prior to Oct. 1, 1964, published as "near Lapine."

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to Jan. 15, 1945, nonrecording gages at nearby sites at same datum.

REMARKS.--Reservoir is formed by rock-faced, earthfill dam completed in 1949. Some storage began in December 1942, capacity, 182,100 acre-ft (225 hm³) between elevations 4,265.0 ft (1,299.97 m), no storage, and 4,336.0 ft (1,321.61 m) crest of spillway, with earth plug to elevation 4,339.0 ft (1,322.53 m). Crater Creek Canal diverts water above station to Tumalo Creek basin. Released water is diverted from Deschutes River at Bend for irrigation near Madras.

COOPERATION.--Daily elevations furnished by North Unit Irrigation District, and capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 204,000 acre-ft (252 hm³) Apr. 8, 1974, elevation, 4,338.01 ft (1,322.225 m); minimum observed since reservoir first filled in March 1949, 534 acre-ft (0.66 hm³), revised on basis of computer expanded capacity table dated June 1970, Oct. 18, 1952, elevation, 4,270.86 ft (1,301.758 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 203,100 acre-ft (250 hm³) Mar. 28, elevation, 4,337.93 ft (1,322.201 m); minimum observed, 48,300 acre-ft (59.6 hm³) Sept. 23, elevation, 4,309.82 ft (1,313.633 m).

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	4,327.05	108,000	-
Oct. 31	4,329.25	122,500	+14,500
Nov. 30	4,332.08	144,800	+22,300
Dec. 31	4,333.59	158,400	+13,600
CAL YR 1976	-	-	-21,000
Jan. 31	4,334.94	171,300	+12,900
Feb. 28	4,336.81	190,700	+19,400
Mar. 31	4,337.92	202,900	+12,200
Apr. 30	4,336.12	183,400	-19,500
May 31	4,335.56	177,600	-5,800
June 30	4,330.06	128,500	-49,100
July 31	4,323.21	88,100	-40,400
Aug. 31	4,316.15	64,500	-23,600
Sept.30	4,310.49	49,800	-14,700
WTR YR 1977	-	-	-58,200

14056500 DESCHUTES RIVER BELOW WICKIUP RESERVOIR, NEAR LA PINE, OR

LOCATION.--Lat 43°41'10", long 121°41'13", in NW¼NE¼ sec.7, T.22 S., R.9 E., Deschutes County, Hydrologic Unit 17070301, on left bank 1,000 ft (305 m) downstream from Wickiup Dam, 9 mi (14 km) west of La Pine, and at mile 226.4 (364.3 km).

DRAINAGE AREA.--483 mi^2 (1,251 km^2), hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--June 1938 to current year. Monthly discharge only June 1938, published in WSP 1318. Published as "near Lapine" 1938-64.

REVISED RECORDS.--WSP 1448: 1944(m), 1947-51(m).

GAGE.--Water-stage recorder. Datum of gage is 4,257.41 ft (1,297.659 m) above mean sea level (levels by Bureau of Reclamation).

REMARKS.--Records good. Flow regulated by Crane Prairie Reservoir (see station 14053500), and since 1942 by Wickiup Reservoir (see station 14056500). Some leakage from Crane Prairie and Wickiup Reservoirs does not pass station. Some spill bypassed station in 1955. Crater Creek canal diverts water above station to Tumalo Creek basin.

AVERAGE DISCHARGE.--39 years, 753 ft^3/s (21.32 m^3/s), 545,500 acre-ft/yr (673 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,280 ft^3/s (64.6 m^3/s) July 28 to Aug. 1, 1956, July 31, Aug. 1, 2, 1962; minimum, 1.9 ft^3/s (0.054 m^3/s) Nov. 10, 1973; minimum daily, 10 ft^3/s (0.28 m^3/s) Jan. 17, 1952.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,650 ft^3/s (46.7 m^3/s) June 30 to July 3; maximum gage height, 6.37 ft (1.942 m) July 2; minimum discharge, 31 ft^3/s (0.88 m^3/s) Feb. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1050	283	422	374	135	40	458	1160	1160	1650	1430	959
2	1060	283	422	374	95	40	528	1130	1300	1650	1430	963
3	1060	288	428	374	93	40	648	1050	1430	1650	1430	966
4	1060	290	428	377	93	38	653	977	1450	1640	1430	1020
5	1060	288	428	380	95	40	865	977	1450	1620	1430	1100
6	1070	290	428	377	95	40	896	963	1440	1510	1430	1150
7	1060	293	425	377	95	38	984	942	1470	1440	1420	1180
8	1040	270	425	377	95	38	980	928	1480	1400	1390	1230
9	1020	238	425	377	97	38	956	889	1400	1390	1360	1260
10	996	240	422	380	97	38	959	658	1350	1390	1360	1260
11	889	240	422	380	99	38	959	551	1390	1430	1350	1260
12	882	243	425	383	101	38	963	571	1390	1450	1360	1260
13	882	245	428	389	103	40	977	592	1380	1470	1370	1260
14	865	245	428	353	103	40	1030	749	1380	1470	1370	1260
15	816	245	428	302	109	87	992	784	1370	1470	1330	1270
16	823	248	428	300	109	208	1000	774	1360	1480	1300	1260
17	823	250	428	302	97	255	1080	718	1390	1470	1300	1210
18	795	250	425	305	66	293	1050	725	1570	1470	1280	1180
19	704	253	425	308	74	323	992	798	1580	1470	1250	1070
20	475	357	422	302	72	323	966	945	1590	1460	1250	935
21	263	431	422	302	72	323	959	1200	1590	1470	1260	728
22	268	431	425	305	72	344	966	1290	1580	1460	1240	735
23	265	428	425	310	72	353	970	1270	1590	1460	1210	721
24	270	428	422	308	51	374	992	1230	1600	1450	1160	672
25	273	428	422	288	38	383	992	1200	1610	1450	1070	676
26	275	428	422	258	38	380	1010	1100	1620	1450	952	679
27	278	425	419	210	40	380	1020	1040	1630	1440	945	679
28	265	422	419	180	40	425	996	1040	1640	1440	945	651
29	265	422	395	180	---	452	976	1050	1640	1440	945	268
30	278	419	383	178	---	455	1120	1140	1650	1430	945	79
31	283	---	380	180	---	458	---	1150	---	1430	959	---
TOTAL	21413	9601	13046	9790	2346	6362	27937	29591	44480	45900	38901	28941
MEAN	691	320	421	316	83.8	205	931	955	1483	1481	1255	965
MAX	1070	431	428	389	135	458	1120	1290	1650	1650	1430	1270
MIN	263	238	380	178	38	38	458	551	1160	1390	945	79
AC-FT	42470	19040	25880	19420	4650	12620	55410	58690	88230	91040	77160	57400

CAL YR 1976 TOTAL 325143 MEAN 888 MAX 2060 MIN 238 AC-FT 644900
WTR YR 1977 TOTAL 278308 MEAN 762 MAX 1650 MIN 38 AC-FT 552000

14057500 FALL RIVER NEAR LA PINE, OR

LOCATION.--Lat 43°47'48", long 121°34'18", in NW¼SE¼ sec.31, T.20 S., R.10 E., Deschutes County, Hydrologic Unit 17070301, on left bank 50 ft (15 m) downstream from pond spillway at State fish hatchery, 9 mi (14 km) northeast of La Pine, and at mile 4.8 (7.7 km).

DRAINAGE AREA.--45.1 mi^2 (116.8 km^2), hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--July 1938 to current year. Records for May to September 1912 at site 3 mi (4.8 km) downstream not equivalent owing to difference in drainage area. Prior to Oct. 1, 1964, published as "near Lapine."

REVISED RECORDS.--WSP 984: 1938-42(M,m).

GAGE.--Water-stage recorder. Altitude of gage is 4,220 ft (1,286 m), by barometer.

REMARKS.--Records excellent. Diversion only to ponds at fish hatchery 50 ft (15 m) above station, from which water returns to river above station. Stream is spring fed and momentary extremes are caused by operation of fish hatchery.

AVERAGE DISCHARGE.--39 years, 153 ft^3/s (4.333 m^3/s), 110,800 acre-ft/yr (137 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 254 ft^3/s (7.19 m^3/s) June 5, 1965, gage height, 2.02 ft (0.616 m); minimum, 67 ft^3/s (1.90 m^3/s) sometime during period Sept. 20-30, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 209 ft^3/s (5.92 m^3/s) Oct. 30, gage height, 1.69 ft (0.515 m); minimum, 126 ft^3/s (3.57 m^3/s) Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	175	171	164	163	158	158	156	151	150	145	144	136
2	175	169	164	164	156	158	156	150	148	145	142	136
3	174	169	164	164	158	158	155	151	148	144	141	136
4	174	169	164	164	158	158	155	151	148	144	141	135
5	174	169	164	164	156	158	155	151	148	144	141	135
6	174	169	164	163	156	158	155	151	148	142	141	135
7	174	169	164	163	156	158	155	151	148	142	141	133
8	174	169	164	163	156	158	155	151	147	142	141	132
9	174	169	164	163	156	158	155	153	147	142	141	132
10	174	169	164	163	156	158	153	153	147	142	141	132
11	174	169	164	163	156	158	151	153	147	142	141	132
12	172	169	164	163	158	158	151	153	147	142	141	132
13	172	169	164	163	158	158	151	153	147	142	141	132
14	172	169	163	163	158	158	151	151	147	142	141	132
15	172	167	163	161	158	158	151	151	147	142	141	132
16	172	167	163	161	158	158	151	150	148	142	141	132
17	172	167	163	161	158	158	151	150	148	142	141	132
18	172	167	163	161	158	158	150	150	148	142	139	133
19	172	167	163	161	158	158	151	150	148	142	139	133
20	172	167	163	161	158	158	150	150	147	145	139	133
21	172	167	163	159	159	156	151	150	147	144	139	133
22	172	166	163	159	158	156	151	151	147	144	139	133
23	172	166	163	159	159	156	151	151	147	144	139	133
24	172	166	161	159	158	156	151	151	147	144	139	133
25	172	166	161	159	156	156	151	151	147	145	139	133
26	172	166	161	158	158	156	151	151	147	145	138	133
27	171	166	161	158	158	156	151	151	147	144	138	133
28	171	166	161	158	158	156	150	151	147	144	138	133
29	171	166	163	158	---	156	150	150	145	144	138	133
30	171	166	163	158	---	156	150	150	145	144	138	133
31	171	---	163	158	---	156	---	150	---	144	136	---
TOTAL	5351	5031	5056	4995	4412	4876	4565	4681	4419	4441	4339	3995
MEAN	173	168	163	161	158	157	152	151	147	143	140	133
MAX	175	171	164	164	159	158	156	153	150	145	144	136
MIN	171	166	161	158	156	156	150	150	145	142	136	132
AC-FT	10610	9980	10030	9910	8750	9670	9050	9280	8770	8810	8610	7920

CAL YR 1976 TOTAL 64749 MEAN 177 MAX 187 MIN 161 AC-FT 128400
WTR YR 1977 TOTAL 56161 MEAN 154 MAX 175 MIN 132 AC-FT 111400

14059500 CRESCENT LAKE NEAR CRESCENT, OR

LOCATION.--Lat 43°30'05", long 121°58'20", in SW¼ sec.11, T.24 S., R.6 E., Klamath County, Hydrologic Unit 17070302, Deschutes National Forest, on outlet works at dam on Crescent Creek, 0.8 mi (1.3 km) south of town of Crescent Lake, 14.0 mi (22.5 km) west of Crescent, and at mile 30.0 (48.3 km).

DRAINAGE AREA.--60.7 mi^2 (157 km^2), hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--August 1922 to current year.

REVISED RECORDS.--WSP 1218: Drainage area. WSP 1318: 1922-31. WSP 1448: 1923-31(M,m).

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to Oct. 1, 1956, nonrecording gage at nearby site at datum 4,825.16 ft (1,470.709 m), above mean sea level. Oct. 1, 1956, to Sept. 12, 1966, nonrecording gage, at present site and datum.

REMARKS.--Reservoir originally formed by dam of earth and logs completed in 1922, reconstructed as earthfill dam in 1956. Capacity, 117,200 acre-ft (145 hm^3) between elevations 4,821.5 ft (1,469.59 m), sill of outlet gate and 4,853.0 ft (1,479.19 m), crest of spillway. Maximum allowable storage, 86,050 acre-ft (106 hm^3) elevation, 4,845.32 ft (1,476.854 m). Dead storage about 500,000 acre-ft (616 hm^3) Oregon Game Commission survey. Records given herein represent usable contents. Water surface probably cannot be lowered below elevation 4,823.4 ft (1,470.17 m) owing to natural flow through reservoir. Released water is diverted from Deschutes River at Bend for irrigation near Tumalo.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 93,010 acre-ft (115 hm^3) June 6, 1975, elevation, 4,847.09 ft (1,477.393 m); minimum observed, 9,640 acre-ft (11.9 hm^3) Oct. 21, 1931, elevation, 4,827.91 ft (1,471.547 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 71,380 acre-ft (88.0 hm^3) Apr. 10, elevation, 4,841.54 ft (1,475.701 m); minimum, 33,110 acre-ft (40.8 hm^3) Sept. 16, 17, elevation, 4,831.34 ft (1,472.592 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	4,838.35	59,160	-
Oct. 31	4,838.95	61,440	+2,280
Nov. 30	4,839.71	64,340	+2,900
Dec. 31	4,840.27	66,500	+2,160
CAL YR 1976	-	-	-13,470
Jan. 31	4,840.74	68,280	+1,780
Feb. 28	4,841.10	69,680	+1,400
Mar. 31	4,841.51	71,260	+1,580
Apr. 30	4,841.25	70,260	-1,000
May 31	4,839.80	64,690	-5,570
June 30	4,838.01	57,870	-6,820
July 31	4,834.75	45,620	-12,250
Aug. 31	4,832.26	36,440	-9,180
Sept. 30	4,831.66	34,270	-2,170
WTR YR 1977	-	-	-24,890

14060000 CRESCENT CREEK AT CRESCENT LAKE, NEAR CRESCENT, OR

LOCATION.--Lat 43°30'11", long 121°58'20", in SE¼SW¼ sec.11, T.24 S., R.6 E., Klamath County, Hydrologic Unit 17070302, Deschutes National Forest, on left bank 400 ft (122 m) downstream from Crescent Lake Dam, 0.5 mi (0.8 km) south of town of Crescent Lake, 14 mi (23 km) west of Crescent, and at mile 29.9 (48.1 km).

DRAINAGE AREA.--60.7 mi^2 (157.2 km^2), hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--January to September 1911 (gage heights and discharge measurements only), January 1912 to July 1915, July to September 1927, May 1928 to current year. Published as Crescent Lake outlet near Crescent January 1911 to September 1912, and as Crescent Creek at outlet of Crescent Lake, near Crescent October 1913 to July 1915.

REVISED RECORDS.--WSP 1218: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 4,819.96 ft (1,469.124 m) above mean sea level. See WSP 1935 for history of changes prior to Sept. 11, 1956.

REMARKS.--Records good. Flow regulated since 1922 by Crescent Lake (see station 14059500). No diversion above station.

AVERAGE DISCHARGE.--51 years (water years 1913-14, 1929-77), 58.8 ft^3/s (1.665 m^3/s), 42,600 acre-ft/yr (52.5 hm^{3}yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 313 ft^3/s (8.86 m^3/s) July 9, 1929, Aug. 9, 1936; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 208 ft^3/s (5.89 m^3/s) June 29 to July 1, gage height, 2.46 ft (0.750 m); no flow Sept. 17-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	1.2	1.4	2.3	2.5	2.5	2.5	106	158	208	185	140
2	22	1.2	1.4	2.3	2.5	2.5	2.5	106	158	207	183	136
3	22	1.4	1.4	2.3	2.5	2.5	2.5	105	156	205	182	132
4	22	1.4	1.6	2.3	2.5	2.5	2.3	105	157	204	183	133
5	22	1.4	1.6	2.3	2.5	2.5	2.3	105	157	203	182	134
6	22	1.4	1.6	2.3	2.5	2.3	2.5	105	157	202	176	133
7	22	1.4	1.6	2.3	2.5	2.3	2.5	105	157	200	169	132
8	22	1.4	1.6	2.5	2.5	2.5	2.5	105	157	200	168	130
9	22	1.2	1.6	2.5	2.5	2.5	2.5	104	156	199	167	130
10	22	1.2	1.6	2.5	2.5	2.5	2.5	104	156	198	167	129
11	22	1.2	1.6	2.5	2.5	2.5	9.6	104	156	196	164	123
12	22	1.2	1.6	2.5	2.5	2.5	18	104	155	195	163	121
13	22	1.2	1.6	2.5	2.5	2.5	18	104	153	194	162	120
14	22	1.2	1.6	2.5	2.5	2.5	18	104	153	194	158	120
15	22	1.2	1.6	2.5	2.5	2.5	18	104	153	192	157	119
16	22	1.2	1.6	2.5	2.5	2.5	18	104	152	191	157	56
17	22	1.2	1.6	2.5	2.5	2.5	18	104	152	190	156	.00
18	22	1.2	1.6	2.5	2.5	2.5	18	104	152	189	151	.00
19	22	1.4	1.6	2.5	2.5	2.5	18	104	152	187	149	.00
20	22	1.4	1.8	2.8	2.5	2.5	18	104	152	186	149	.00
21	22	1.4	1.8	2.8	2.5	2.3	18	120	152	185	149	.00
22	22	1.4	1.8	2.8	2.5	2.3	18	161	151	183	147	.00
23	22	1.4	1.8	2.8	2.5	2.3	18	159	151	182	146	.00
24	22	1.4	1.8	2.8	2.5	2.3	18	159	151	181	145	.00
25	22	1.4	1.8	2.8	2.5	2.5	18	159	150	178	146	.00
26	15	1.4	2.0	2.8	2.5	2.5	55	159	150	177	144	.00
27	1.2	1.4	2.0	2.8	2.5	2.5	107	159	149	182	144	.00
28	1.2	1.4	2.3	2.8	2.5	2.5	107	159	149	189	144	.00
29	1.2	1.4	2.3	2.8	---	2.5	106	159	176	189	144	.00
30	1.2	1.4	2.3	2.8	---	2.5	106	159	208	186	143	.00
31	1.2	---	2.3	2.8	---	2.5	---	159	---	185	143	---
TOTAL	571.0	39.6	53.8	79.7	70.0	76.3	767.2	3802	4688	5957	4923	1986.00
MEAN	18.4	1.32	1.74	2.57	2.50	2.46	25.6	123	156	192	159	66.2
MAX	22	1.4	2.3	2.8	2.5	2.5	107	161	208	208	185	140
MIN	1.2	1.2	1.4	2.3	2.5	2.3	2.3	104	149	177	143	.00
AC-FT	1130	79	107	158	139	151	1520	7540	9300	11820	9760	3940

CAL YR 1976 TOTAL 32296.00 MEAN 88.2 MAX 208 MIN 1.2 AC-FT 64060
WTR YR 1977 TOTAL 23013.60 MEAN 63.1 MAX 208 MIN .0 AC-FT 45650

14063000 LITTLE DESCHUTES RIVER NEAR LA PINE, OR

LOCATION.--Lat 43°41'21", long 121°30'06", in SW¼SW¼ sec.2, T.22 S., R.10 E., Deschutes County, Hydrologic Unit 17070302, on right bank 10 ft (3 m) downstream from highway bridge at former town of Rosland, 1.1 mi (1.8 km) north of La Pine, and at mile 26.8 (43.1 km).

DRAINAGE AREA.--839 mi^2 (2,225 km^2), hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--September 1910 to January 1911, March, April, August 1911, March to September 1912, June to October 1913, June to November 1918, August to October 1920, May 1924 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as Deschutes River near Lapine 1910-12, as East Fork Deschutes River near Lapine 1913-20, and as Little Deschutes River near Lapine 1924-64.

REVISED RECORDS.--WSP 1218: 1950.

GAGE.--Water-stage recorder. Datum of gage is 4,192.81 ft (1,277.968 m) above mean sea level. Sept. 1, 1910, to Aug. 31, 1911, nonrecording gage at present site at different datum. Mar. 1 to Sept. 30, 1912, nonrecording gage at site 1.2 mi (1.9 km) downstream at different datum. June 1, 1913, to Sept. 28, 1928, nonrecording gage and Sept. 29, 1928, to Sept. 30, 1931, water-stage recorder at present site at different datums.

REMARKS.--Records good. Flow regulated since 1922 by Crescent Lake (see station 14063000). Many diversions for irrigation above station.

AVERAGE DISCHARGE.--53 years (water years 1925-77), 207 ft^3/s (5.862 m^3/s), 150,000 acre-ft/yr (185 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,660 ft^3/s (104 m^3/s) Dec. 25, 1964, gage height, 8.18 ft (2.493 m); minimum, 8 ft^3/s (0.227 m^3/s) Sept. 2, 3, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 227 ft^3/s (6.43 m^3/s) May 24, gage height, 3.72 ft (1.134 m); minimum, 32 ft^3/s (0.91 m^3/s) Sept. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	83	72	64	70	68	57	129	186	172	166	144
2	105	87	75	68	70	69	55	174	185	195	166	143
3	104	89	76	74	70	67	57	195	185	198	165	140
4	104	87	79	74	70	61	57	206	188	198	158	138
5	104	83	77	70	70	61	69	195	187	195	157	134
6	103	81	74	65	70	64	73	185	187	194	160	131
7	102	80	75	56	70	68	73	174	197	192	156	128
8	101	80	80	54	70	76	78	165	206	191	158	125
9	99	79	75	60	70	88	80	162	207	189	157	123
10	99	76	74	65	70	86	73	189	205	187	153	123
11	98	77	65	70	70	73	64	199	203	186	150	122
12	96	76	73	70	70	73	63	197	210	184	150	120
13	96	75	70	70	70	71	70	183	205	180	150	116
14	95	76	69	70	70	66	71	169	205	179	150	116
15	94	79	73	70	70	67	71	160	209	176	151	116
16	93	80	73	70	70	65	71	156	193	175	149	116
17	93	81	70	70	70	62	68	154	182	173	145	117
18	92	82	70	70	70	61	57	147	172	173	147	73
19	92	79	69	70	69	59	57	149	167	174	151	48
20	92	76	66	70	66	58	54	144	164	172	150	41
21	93	75	63	70	63	57	50	138	161	171	145	40
22	93	76	68	70	64	57	50	127	156	172	141	38
23	92	80	69	70	61	65	50	183	150	171	137	34
24	95	78	61	70	65	76	50	222	145	174	143	39
25	104	76	66	65	61	72	50	225	143	175	163	40
26	115	76	69	62	59	69	56	213	141	172	163	38
27	116	70	69	65	61	65	58	211	134	167	161	39
28	100	61	69	68	63	72	104	211	124	164	161	49
29	89	71	69	70	---	65	120	200	119	171	158	67
30	85	70	68	70	---	60	121	196	119	171	154	69
31	83	---	66	70	---	57	---	189	---	167	150	---
TOTAL	3033	2339	2192	2100	1892	2078	2027	5545	5235	5558	4765	2767
MEAN	97.8	78.0	70.7	67.7	67.6	67.0	67.6	179	175	179	154	92.2
MAX	116	89	80	74	70	88	121	225	210	198	166	144
MIN	83	61	61	54	59	57	50	127	119	164	137	34
AC-FT	6020	4640	4350	4170	3750	4120	4020	11000	10380	11020	9450	5490

CAL YR 1976 TOTAL 90851 MEAN 248 MAX 552 MIN 61 AC-FT 180200
WTR YR 1977 TOTAL 39531 MEAN 108 MAX 225 MIN 34 AC-FT 78410

14064500 DESCHUTES RIVER AT BENHAM FALLS, NEAR BEND, OR

LOCATION.--Lat 43°55'49", long 121°24'39", in SW¼NE¼ sec.16, T.19 S., R.11 E., Deschutes County, Hydrologic Unit 17070301, Deschutes National Forest, on right bank 0.5 mi (0.8 km) upstream from Benham Falls, 10 mi (16 km) southwest of Bend, and at mile 181.4 (291.9 km).

DRAINAGE AREA.--1,759 mi^2 (4,556 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1906 to September 1913, April to September 1914, August to December 1920, April to September 1921, February 1924 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as "at West's ranch, near Lava" April 1906 to February 1909, April to September 1914. Records for January 1905 to March 1906 and October 1913 to September 1914, published under present name in WSP 370 and 394, have been found to be unreliable and should not be used.

REVISED RECORDS.--See PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 4,142.10 ft (1,262.512 m) above mean sea level (Bureau of Reclamation bench mark). See WSP 1738 for history of changes prior to Nov. 20, 1958.

REMARKS.--Water-discharge records good. Flow regulated by Crane Prairie Reservoir, Crescent Lake, and Wickiup Reservoir (see elsewhere in this report). Many diversions for irrigation above station.

AVERAGE DISCHARGE.--60 years (water years 1907-13, 1925-77), 1,424 ft^3/s (40.33 m^3/s), 1,032,000 acre-ft/yr (1.27 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft^3/s (142 m^3/s), estimated, Nov. 27, 1909 (gage height not determined); minimum, 363 ft^3/s (10.3 m^3/s) Jan. 20, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,310 ft^3/s (65.4 m^3/s) July 4, 5; maximum gage height, 5.59 ft (1.734 m) July 4; minimum discharge, 654 ft^3/s (18.5 m^3/s) Mar. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1700	941	1050	1000	796	669	1040	1720	1800	2230	2070	1590
2	1700	937	1050	1010	768	669	1060	1770	1800	2270	2070	1590
3	1700	937	1060	1000	700	672	1100	1770	1910	2300	2070	1590
4	1690	937	1070	1000	693	665	1210	1710	2030	2310	2060	1590
5	1690	932	1060	1000	693	665	1240	1660	2060	2310	2060	1640
6	1690	932	1060	905	693	662	1420	1650	2070	2300	2060	1700
7	1690	928	1060	928	697	662	1480	1630	2090	2220	2060	1730
8	1690	928	1070	1010	704	669	1560	1590	2100	2160	2060	1760
9	1660	914	1070	982	708	679	1570	1570	2120	2100	2030	1800
10	1640	874	1050	1040	716	683	1550	1560	2070	2080	2000	1830
11	1630	869	1050	1080	720	686	1550	1350	2030	2070	2000	1830
12	1540	869	1050	1050	724	676	1550	1270	2040	2090	1990	1830
13	1510	869	1050	1020	724	672	1550	1270	2060	2120	1980	1830
14	1510	874	1060	1020	724	672	1570	1280	2060	2130	2000	1830
15	1490	869	1060	977	724	669	1610	1400	2040	2130	2000	1830
16	1450	874	1060	919	732	683	1580	1430	2050	2120	1980	1830
17	1440	874	1070	914	732	776	1580	1410	2040	2120	1940	1830
18	1440	878	1060	919	728	832	1650	1360	2050	2120	1930	1810
19	1420	874	1060	923	693	856	1610	1360	2160	2120	1920	1770
20	1350	874	1050	928	690	892	1560	1420	2190	2120	1880	1650
21	1180	959	1060	928	690	892	1530	1550	2200	2120	1880	1520
22	968	1060	1060	923	686	896	1520	1780	2210	2110	1870	1310
23	959	1070	1070	928	683	910	1520	1890	2200	2110	1860	1290
24	955	1070	1060	932	683	928	1530	1890	2210	2120	1840	1290
25	977	1070	1060	932	679	955	1540	1880	2210	2100	1810	1230
26	973	1060	1070	914	658	968	1550	1870	2210	2100	1780	1230
27	968	1050	1070	874	658	973	1560	1780	2220	2090	1620	1230
28	973	1040	1070	836	672	973	1570	1710	2230	2080	1600	1250
29	959	1050	1070	796	---	1000	1570	1700	2230	2070	1600	1240
30	937	1050	1040	796	---	1040	1580	1710	2230	2070	1590	968
31	941	---	1010	796	---	1040	---	1770	---	2070	1590	---
TOTAL	42420	28463	32810	29280	19768	24684	44490	49710	62920	66460	59200	47418
MEAN	1368	949	1058	945	706	796	1483	1604	2097	2144	1910	1581
MAX	1700	1070	1070	1080	796	1040	1650	1890	2230	2310	2070	1830
MIN	937	869	1010	796	658	662	1040	1270	1800	2070	1590	968
AC-FT	84140	56460	65080	58080	39210	48960	88250	98600	124800	131800	117400	94050

CAL YR 1976 TOTAL 622343 MEAN 1700 MAX 2750 MIN 869 AC-FT 1234000
WTR YR 1977 TOTAL 507623 MEAN 1391 MAX 2310 MIN 658 AC-FT 1007000

14064500 DESCHUTES RIVER AT BENHAM FALLS, NEAR BEND, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1967 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 17.0°C on several days in 1968, 1971, and 1974; minimum, 0.0°C Jan. 23, 26, 1969, Jan. 9, 10, 1973, Feb. 5-8, 1976.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 16.0°C Aug. 19, 20; minimum, 1.5°C Jan. 5-12.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.0	10.5	6.0	6.0	3.5	3.0	3.5	3.5	4.0	3.5	5.5	4.5
2	11.0	10.5	6.5	6.0	3.5	3.0	3.5	2.0	4.0	3.5	5.0	4.5
3	10.5	9.5	6.5	6.5	3.0	3.0	3.0	3.0	4.0	3.5	4.5	4.0
4	10.0	9.5	6.5	6.5	3.5	3.0	3.0	3.0	4.5	3.5	5.0	4.0
5	9.5	9.0	6.5	6.0	3.5	3.5	3.0	1.5	4.5	4.0	5.5	4.5
6	9.5	9.0	6.5	6.0	3.5	3.5	1.5	1.5	4.0	4.0	5.5	5.0
7	10.0	9.5	6.0	6.0	4.0	3.5	1.5	1.5	4.5	4.0	5.5	5.0
8	10.0	9.5	6.0	6.0	4.0	4.0	1.5	1.5	4.5	4.0	5.0	5.0
9	9.5	9.0	6.0	6.0	4.0	3.5	1.5	1.5	5.0	4.5	5.0	5.0
10	9.5	9.0	6.0	5.5	4.0	3.5	1.5	1.5	5.0	4.5	5.5	4.5
11	9.0	9.0	6.0	5.5	3.5	3.0	1.5	1.5	5.5	4.5	5.5	5.0
12	9.0	8.5	5.5	5.5	3.0	3.0	3.0	1.5	5.5	5.0	5.5	5.5
13	8.5	8.0	5.5	5.0	3.5	3.0	3.5	3.0	5.5	5.0	5.5	5.0
14	8.5	8.0	5.0	5.0	3.5	3.5	3.5	3.5	5.5	5.0	5.5	4.5
15	8.5	8.0	6.0	5.0	3.5	3.5	3.5	3.0	5.5	5.0	5.5	5.0
16	8.5	8.0	6.5	6.0	3.5	3.5	3.5	3.0	5.5	5.0	6.0	5.5
17	8.5	7.0	6.5	6.5	3.5	3.5	3.5	3.0	5.5	5.0	6.0	5.5
18	7.0	6.5	6.5	6.5	3.5	3.0	3.5	3.5	5.5	5.0	6.0	5.5
19	7.0	6.5	6.5	6.0	3.5	3.0	3.5	3.5	5.5	5.0	5.5	5.0
20	7.0	6.5	6.0	5.5	3.0	2.0	3.5	3.0	5.5	5.0	5.5	4.5
21	7.0	6.5	5.5	5.0	3.0	3.0	3.5	3.0	5.5	5.0	6.5	5.0
22	7.0	6.5	5.0	5.0	3.0	3.0	3.5	3.5	5.0	4.5	6.5	6.0
23	6.5	6.0	5.0	5.0	3.0	3.0	3.5	3.0	5.0	4.5	6.5	6.0
24	6.5	6.0	5.0	5.0	3.0	3.0	3.5	3.0	4.5	4.0	6.0	5.5
25	6.0	6.0	5.0	5.0	3.0	3.0	3.0	3.0	4.5	4.0	5.5	4.5
26	6.0	6.0	5.0	4.0	3.5	3.0	3.0	2.0	4.5	4.0	5.5	5.0
27	6.0	5.5	4.0	3.5	3.5	3.5	3.0	2.0	5.5	4.0	5.0	5.0
28	6.0	5.5	3.5	2.0	3.5	3.5	3.0	2.0	5.5	5.5	5.0	4.5
29	6.0	6.0	3.0	3.0	3.5	3.5	3.5	2.0	---	---	4.5	4.5
30	6.5	6.0	3.0	3.0	3.5	3.5	3.5	3.0	---	---	4.5	4.0
31	6.0	6.0	---	---	3.5	3.5	3.5	3.0	---	---	4.5	4.5
MONTH	11.0	5.5	6.5	2.0	4.0	2.0	3.5	1.5	5.5	3.5	6.5	4.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.0	4.5	9.5	9.5	13.5	13.0	15.0	14.0	15.5	15.0	14.0	13.0
2	6.0	5.0	9.5	9.0	13.5	12.0	15.0	14.0	15.5	15.0	13.5	12.0
3	6.5	6.0	10.0	9.5	13.5	13.0	14.5	14.0	15.5	14.5	14.0	13.0
4	8.0	6.5	10.0	9.0	14.0	13.0	14.0	13.5	15.5	14.5	14.0	13.5
5	8.5	7.0	9.0	8.5	15.0	14.0	13.5	13.5	15.5	14.5	14.5	13.5
6	8.5	7.0	8.5	8.0	15.0	14.5	14.0	13.5	15.0	14.5	14.5	13.5
7	8.5	8.0	8.5	8.5	15.0	14.0	14.5	14.0	15.0	14.5	14.0	13.5
8	8.5	8.0	9.0	8.5	14.5	14.0	15.0	14.0	14.5	14.0	13.5	13.0
9	8.5	7.0	9.0	9.0	14.5	14.0	15.0	14.0	15.0	14.0	13.0	12.0
10	8.0	7.0	9.0	8.0	14.0	13.0	14.5	13.5	15.0	14.0	13.0	12.0
11	9.0	7.0	8.5	8.0	14.0	12.5	15.0	14.0	15.0	14.0	13.0	12.0
12	9.0	8.0	9.0	8.5	13.5	13.0	15.0	14.5	15.5	14.0	13.0	12.0
13	9.0	8.5	10.5	9.0	13.5	13.5	15.0	14.0	15.5	14.0	13.0	12.0
14	8.5	7.5	10.5	10.0	14.0	13.0	15.0	14.0	15.0	14.5	13.0	12.0
15	9.0	8.0	10.5	9.5	14.0	13.5	15.5	14.5	15.0	14.5	13.0	12.0
16	9.0	8.0	10.0	9.0	14.5	13.5	15.5	14.5	15.0	14.5	12.0	11.0
17	9.0	8.0	10.0	9.5	14.0	13.5	15.0	14.0	15.5	14.5	11.0	11.0
18	8.5	8.0	10.0	9.5	14.0	13.5	15.0	14.0	15.5	14.5	11.0	11.0
19	8.5	8.0	11.0	9.5	14.0	14.0	14.5	13.5	16.0	15.0	11.0	10.5
20	8.5	8.0	13.0	11.0	14.0	13.5	14.5	14.0	16.0	14.5	11.0	10.5
21	8.5	8.0	13.0	11.5	14.0	13.0	14.5	14.0	15.5	14.5	11.0	10.5
22	8.5	8.0	12.0	11.0	15.0	14.0	14.5	14.0	15.5	14.5	10.5	10.0
23	9.0	8.5	11.0	10.5	15.5	15.0	15.0	14.5	15.0	14.5	10.5	10.0
24	9.0	8.5	11.0	11.0	15.0	14.5	15.0	14.0	14.5	14.0	10.0	9.5
25	10.0	9.0	11.0	11.0	15.5	14.5	14.5	13.5	14.0	13.0	10.0	10.0
26	9.5	9.0	11.0	10.5	15.0	14.5	15.5	14.0	13.5	12.0	10.0	10.0
27	10.5	9.5	11.0	10.5	15.0	14.5	15.5	15.0	13.0	12.0	10.0	10.0
28	10.5	9.5	11.0	9.5	15.0	14.5	15.5	15.0	13.0	12.0	10.0	9.5
29	10.0	9.0	12.0	10.5	15.0	14.5	15.5	14.5	13.5	13.0	9.5	9.0
30	9.5	9.0	12.0	11.0	15.0	14.0	15.0	14.0	14.0	13.5	9.5	9.0
31	---	---	13.5	11.5	---	---	15.5	14.5	14.0	13.5	---	---
MONTH	10.5	4.5	13.5	8.0	15.5	12.0	15.5	13.5	16.0	12.0	14.5	9.0

DIVERSIONS FROM DESCHUTES RIVER NEAR BEND, OR

The following six canals, all in Deschutes County, Hydrologic Unit 17070301, are the only diversions from Deschutes River between gaging stations at Benham Falls and below Bend.

14065500 **ARNOLD CANAL NEAR BEND** diverts at mile 174.5 (280.8 km) from right bank at head of Lava Island, in SW¼ sec.27, T.18 S., R.11 E.; water used for irrigation southeast of Bend. Records available, October 1912 to current year.

14066500 **CENTRAL OREGON CANAL ABOVE PILOT BUTTE CANAL, NEAR BEND** diverts at mile 169.5 (272.7 km) from right bank in NE¼ sec.13, T.18 S., R.11 E.; water used for irrigation east of Bend. Beginning Oct. 1, 1932, record obtained upstream from intake of Pilot Butte Canal. Records available, October 1932 to current year.

14068500 **DESCHUTES COUNTY MUNICIPAL IMPROVEMENT DISTRICT CANAL AT BEND** diverts at mile 165.8 (266.8 km) from left bank in SW¼SE¼ sec.29, T.17 S., R.12 E., at Bend; water stored in Crescent Lake for Tumalo project is diverted by this canal and supplements flow in Tumalo project feed canal for irrigation near Tumalo. Records available, May 1923 to current year.

14069000 **NORTH UNIT MAIN CANAL NEAR BEND** diverts at mile 164.8 (265.2 km) from right bank in NE¼ sec.29, T.17 S., R.12 E.; water used for irrigation near Madras. Records available, October 1945 to current year.

14069500 **NORTH CANAL NEAR BEND** diverts at mile 164.8 (265.2 km) from right bank in NE¼ sec.29, T.17 S., R.12 E.; water used for irrigation north of Bend, mostly near Redmond. Records available, June 1913 to current year.

14070000 **SWALLEY CANAL NEAR BEND** diverts at mile 164.8 (265.2 km) from right bank in NE¼ sec.29, T.17 S., R.12 E.; water used for irrigation north of Bend. Records available, 1913 to current year.

Records of monthly discharge of these canals, published as a group, are available from October 1926 to current year; records for each canal published separately prior to 1926.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

MONTH	ARNOLD CANAL	CENTRAL OREGON CANAL	DESCHUTES COUNTY MUNICIPAL IMPROVEMENT DISTRICT CANAL	NORTH UNIT MAIN CANAL	NORTH CANAL	SWALLEY CANAL	TOTAL
OCTOBER	2,560	17,570	2,610	18,290	16,810	4,050	61,890
NOVEMBER	448	2,370	0	0	1,830	732	5,380
DECEMBER	325	1,720	0	0	1,310	680	4,040
JANUARY	379	2,770	0	0	1,740	417	5,310
FEBRUARY	557	2,820	0	0	2,460	722	6,560
MARCH	486	2,700	0	6,990	2,300	538	13,010
APRIL	1,940	21,700	2,070	27,020	20,050	3,300	76,080
MAY	5,470	26,440	7,050	17,320	26,850	5,850	88,980
JUNE	6,580	29,690	7,390	35,170	29,190	7,050	115,070
JULY	7,320	31,210	8,610	36,090	30,700	6,710	120,640
AUGUST	7,140	31,170	8,580	24,520	30,670	7,320	109,400
SEPTEMBER	5,620	27,820	5,420	15,480	26,430	5,640	86,410
WTR YR 1977	38,830	198,000	41,730	180,900	190,300	43,010	692,770

14070500 DESCHUTES RIVER BELOW BEND, OR

LOCATION.--Lat 44°04'59", long 121°18'24", in SE¼SE¼ sec.20, T.17 S., R.12 E., Deschutes County, Hydrologic Unit 17070301, on right bank 0.4 mi (0.6 km) downstream from North Canal, 0.5 mi (0.8 km) north of Bend city limits, and at mile 164.4 (264.5 km).

DRAINAGE AREA.--1,899 mi^2 (4,918 km^2).

PERIOD OF RECORD.--October 1914 to current year.

REVISED RECORDS.--WSP 1318: 1916-18(M), 1926(M), 1931(M).

GAGE.--Water-stage recorder. Datum of gage is 3,503.96 ft (1,068.007 m) above mean sea level. Prior to Oct. 1, 1931, water-stage recorder at site 200 ft (61 m) downstream at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good except those for August and September, which are fair. Flow regulated by powerplant at Bend, Crescent Lake, Crane Prairie Reservoir, and Wickiup Reservoir (see elsewhere in this report). Six large canals and several small ditches divert water above station for irrigation.

AVERAGE DISCHARGE.--63 years, 518 ft^3/s (14.67 m^3/s), 375,300 acre-ft/yr (463 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,820 ft^3/s (79.9 m^3/s) Dec. 27, 1964, gage height, 4.90 ft (1.494 m); maximum gage height, 5.38 ft (1.640 m) Dec. 15, 1932 (backwater from ice); minimum discharge, 1.0 ft^3/s (0.028 m^3/s) Aug. 25, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge near this site since 1905, 4,820 ft^3/s (137 m^3/s) Nov. 27, 1909.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,070 ft^3/s (30.3 m^3/s) Dec. 14; maximum gage height, 3.94 ft (1.201 m) Jan. 9 (backwater from ice); minimum discharge, 8.0 ft^3/s (0.23 m^3/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	886	1000	940	739	624	475	37	27	32	26	28
2	68	908	996	948	739	618	455	35	27	34	26	30
3	52	900	1000	940	672	624	303	37	27	37	26	28
4	50	908	1020	940	654	618	194	37	30	37	26	28
5	50	900	1010	940	654	618	47	35	30	38	27	28
6	50	900	1020	886	654	618	44	35	28	38	27	27
7	64	893	1010	825	654	624	40	35	28	35	27	27
8	86	893	1020	920	660	624	40	35	28	28	27	27
9	81	886	1020	900	660	630	40	34	27	27	27	27
10	57	844	1010	948	666	636	38	110	27	26	27	31
11	113	837	988	1010	642	612	38	152	30	26	27	31
12	92	816	964	996	630	582	38	49	31	26	26	31
13	59	781	956	924	356	310	38	52	31	30	26	31
14	55	618	956	908	104	109	38	44	31	27	26	31
15	54	475	972	760	77	75	40	97	28	27	26	31
16	54	475	1010	606	34	63	40	81	28	30	26	32
17	50	490	988	600	47	160	37	55	27	28	26	32
18	77	582	964	400	285	445	59	40	27	28	25	32
19	97	830	624	320	606	732	47	35	27	28	26	32
20	140	690	425	307	594	781	41	40	28	28	25	72
21	122	624	425	405	594	781	38	30	31	27	24	46
22	149	725	612	718	606	788	35	30	32	27	27	40
23	350	711	964	858	630	510	35	30	32	27	33	40
24	858	746	980	865	636	375	37	31	31	27	32	40
25	872	956	1000	865	630	430	40	30	31	27	28	35
26	872	956	1010	865	618	445	38	30	32	27	31	29
27	865	948	1010	823	612	455	38	28	32	27	30	35
28	865	956	1010	802	624	450	40	28	31	31	31	70
29	858	1000	1010	753	---	465	38	28	32	27	31	104
30	823	996	996	739	---	500	37	27	32	26	31	101
31	837	---	956	739	---	505	---	27	---	26	31	---
TOTAL	8881	24130	28926	24450	15077	15807	2468	1394	883	909	854	1176
MEAN	286	804	933	789	538	510	82.3	45.0	29.4	29.3	27.5	39.2
MAX	872	1000	1020	1010	739	788	475	152	32	38	33	104
MIN	50	475	425	307	34	63	35	27	27	26	24	27
AC-FT	17620	47860	57370	48500	29910	31350	4900	2760	1750	1800	1690	2330

CAL YR 1976 TOTAL 200097 MEAN 547 MAX 1470 MIN 37 AC-FT 396900
WTR YR 1977 TOTAL 124955 MEAN 342 MAX 1020 MIN 24 AC-FT 247800

14073001 TUMALO CREEK NEAR BEND, OR

LOCATION.--Lat 44°05'16", long 121°22'18", in NW¼SE¼ sec.23, T.17 S., R.11 E., Deschutes County, Hydrologic Unit 17070301, on left bank 0.25 mi (0.40 km) upstream from diversion to Tumalo feed canal, 3.0 mi (4.8 km) northwest of Bend, and at mile 3.1 (5.0 km).

DRAINAGE AREA.--47.3 mi^2 (123 km^2).

PERIOD OF RECORD.--October 1913 to December 1921, February, April to November 1922, March 1923 to current year. Published as "below Bend" 1949-50.

REVISED RECORDS.--WSP 864: 1937. WSP 1218: Drainage area. WSP 1448: 1923(M), 1927-29(M), 1935(M), 1942(M). WDR OR-75-1: 1974(M).

GAGE.--Water-stage recorder. Datum of gage is 3,566.82 ft (1,087.167 m) above mean sea level. Prior to Apr. 27, 1915, nonrecording gage and Apr. 27, 1915, to Sept. 30, 1918, water-stage recorder or nonrecording gage at same site and datum.

REMARKS.--Records good. All records given herein include flow in Columbia Southern Canal, which diverts 8 mi (13 km) above station for irrigation of land near Tumalo. No flow in the canal Oct. 12 to Apr. 24, Sept. 21-30. Crater Creek Canal diverts flow of tributaries of Soda Creek into head of Tumalo Creek. Diversion above station for municipal supply of Bend began Dec. 15, 1926, and averaged 8.2 ft^3/s (0.23 m^3/s) for water year 1977.

AVERAGE DISCHARGE.--59 years (water years 1914, 1917-21, 1924-35, 1937-77), 102 ft^3/s (2.889 m^3/s), 73,900 acre-ft/yr (91.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,140 ft^3/s (32.3 m^3/s) Nov. 9, 1968 (no flow in canal), from rating curve extended above 780 ft^3/s (22.1 m^3/s) on basis of slope-area measurement at 3.45 ft (1.052 m); minimum daily, 25 ft^3/s (0.71 m^3/s) Jan. 3, 1924.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 421 ft^3/s (11.9 m^3/s) June 6; minimum daily, 32 ft^3/s (0.91 m^3/s) Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	93	60	60	59	59	53	93	137	39	41	43
2	73	87	60	56	59	59	52	93	150	40	36	39
3	71	77	60	54	59	57	53	90	144	42	35	38
4	70	75	60	52	59	60	55	81	220	44	35	38
5	68	73	59	52	59	57	57	79	293	42	35	37
6	61	71	59	52	59	57	60	75	305	41	35	36
7	75	71	59	52	59	57	60	73	279	37	36	34
8	67	69	60	52	59	59	68	69	222	37	39	35
9	65	69	59	52	59	59	60	66	174	37	36	35
10	66	69	60	52	59	59	57	70	142	39	34	35
11	48	69	59	56	59	57	55	67	116	36	33	35
12	66	68	60	59	60	57	52	65	99	36	33	34
13	66	68	60	59	64	57	57	64	100	38	34	33
14	64	69	60	59	62	57	53	62	101	37	39	34
15	64	85	60	59	60	55	55	63	93	37	36	37
16	64	83	62	59	62	55	62	63	84	38	33	40
17	64	73	62	59	60	57	57	61	77	40	34	41
18	64	73	60	59	59	55	53	59	75	44	32	46
19	66	71	60	59	59	55	53	57	74	42	35	44
20	66	71	60	57	59	55	53	56	68	38	35	33
21	66	71	60	57	59	55	53	64	69	36	34	45
22	66	69	59	57	59	55	57	74	65	39	34	44
23	66	68	59	60	59	57	59	87	55	39	33	45
24	69	68	60	60	59	55	66	79	51	45	48	57
25	71	68	62	60	59	55	81	80	50	44	51	62
26	69	68	61	60	59	55	75	82	49	41	52	57
27	71	66	60	60	59	57	73	72	47	43	46	49
28	71	70	60	60	60	59	83	68	42	40	55	75
29	71	80	60	60	---	59	84	66	43	39	60	64
30	71	69	59	60	---	55	81	70	42	38	55	50
31	75	---	66	60	---	53	---	86	---	40	48	---
TOTAL	2079	2181	1865	1773	1667	1758	1837	2234	3466	1228	1222	1295
MEAN	67.1	72.7	60.2	57.2	59.5	56.7	61.2	72.1	116	39.6	39.4	43.2
MAX	75	93	66	60	64	60	84	93	305	45	60	75
MIN	48	66	59	52	59	53	52	56	42	36	32	33
AC-FT	4120	4330	3700	3520	3310	3490	3640	4430	6870	2440	2420	2570

CAL YR 1976 TOTAL 38747 MEAN 106 MAX 357 MIN 48 AC-FT 76850
WTR YR 1977 TOTAL 22605 MEAN 61.9 MAX 305 MIN 32 AC-FT 44840

14075000 SQUAW CREEK NEAR SISTERS, OR

LOCATION.--Lat 44°14'02", long 121°33'57", in SE¼SW¼ sec.29, T.15 S., R.10 E., Deschutes County, Hydrologic Unit 17070301, on right bank 800 ft (244 m) upstream from intake of McAllister ditch, 4 mi (6 km) south of Sisters, and at mile 26.8 (43.1 km).

DRAINAGE AREA.--54.8 mi^2 (141.9 km^2).

PERIOD OF RECORD.--July 1906 to October 1918, June to August 1919, October 1919 to September 1920, May 1921 to September 1924 (no winter records), April 1925 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1218: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 3,490 ft (1,064 m), by barometer. July 1, 1906, to May 29, 1913, nonrecording gage at site 1,000 ft (305 m) downstream at different datum, below intake of McAllister ditch (records include flow in McAllister ditch). May 30, 1913, to Sept. 2, 1915, nonrecording gage and Mar. 24, 1916, to Oct. 5, 1928, water-stage recorder at site 300 ft (91 m) downstream at different datum. Oct. 6, 1928, to Nov. 7, 1967, water-stage recorder at site 200 ft (61 m) downstream at datum 2.64 ft (0.805 m) lower.

REMARKS.--Records good. No regulation. A canal near mouth of Pole Creek, a tributary above station, diverts entire flow of that creek for irrigation of lands near Sisters.

AVERAGE DISCHARGE.--65 years (water years 1907-18, 1920, 1926-77), 106 ft^3/s (3.002 m^3/s), 76,800 acre-ft/yr (94.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge since 1909, 1,980 ft^3/s (56.1 m^3/s) Dec. 23, 1964, from rating curve extended above 280 ft^3/s (7.93 m^3/s) on basis of slope-area measurement of peak flow; maximum gage height, about 8.75 ft (2.667 m), over top of gage Nov. 22, 1909, site and datum then in use (discharge not determined); minimum discharge, 14 ft^3/s (0.40 m^3/s) Mar. 2, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 380 ft^3/s (10.8 m^3/s) June 4, no peak above base of 470 ft^3/s (13.3 m^3/s); maximum gage height, 3.71 ft (1.131 m) Jan. 10, backwater from ice; minimum discharge, 30 ft^3/s (0.85 m^3/s) Mar. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	85	53	42	73	37	36	82	140	74	75	55
2	82	76	51	41	66	40	36	81	114	73	77	54
3	75	65	51	41	49	39	37	74	104	65	75	64
4	72	62	50	38	52	41	40	61	246	56	74	72
5	71	60	50	37	53	40	42	55	245	52	74	69
6	70	59	50	36	45	38	43	52	222	50	73	60
7	70	58	50	35	38	40	48	49	201	53	72	60
8	70	57	50	35	39	40	50	48	175	60	70	54
9	70	57	50	36	39	39	44	50	137	64	69	50
10	69	56	50	37	40	40	41	57	121	62	70	51
11	68	56	49	39	40	41	41	50	95	68	72	51
12	66	55	49	41	42	38	42	48	94	73	77	51
13	66	55	49	44	44	41	46	49	104	67	78	51
14	65	56	49	50	43	43	42	52	103	68	76	52
15	65	78	49	54	42	40	45	48	89	70	71	49
16	64	67	48	56	41	39	51	46	84	72	73	46
17	63	62	46	58	41	39	45	46	80	74	74	45
18	62	63	46	59	40	36	43	47	82	84	75	57
19	62	60	41	43	40	36	42	47	86	73	78	53
20	61	60	38	42	41	36	42	55	82	72	75	50
21	61	60	42	42	39	36	45	70	88	77	78	46
22	61	58	47	41	37	38	48	71	88	78	72	44
23	60	58	53	42	42	38	51	68	79	84	70	51
24	64	58	52	56	40	37	58	61	77	81	103	56
25	63	57	57	67	40	37	69	60	81	77	84	61
26	62	56	62	62	39	37	67	67	80	74	71	50
27	59	57	46	58	41	39	65	57	78	73	52	51
28	59	58	42	78	42	37	71	52	75	74	69	70
29	59	64	37	85	---	40	77	53	76	67	82	56
30	59	58	45	74	---	38	76	57	74	69	101	50
31	72	---	44	70	---	36	---	82	---	72	62	---
TOTAL	2050	1831	1496	1539	1228	1196	1483	1795	3400	2156	2322	1629
MEAN	66.1	61.0	48.3	49.6	43.9	38.6	49.4	57.9	113	69.5	74.9	54.3
MAX	82	85	62	85	73	43	77	82	246	84	103	72
MIN	59	55	37	35	37	36	36	46	74	50	52	44
AC-FT	4070	3630	2970	3050	2440	2370	2940	3560	6740	4280	4610	3230

CAL YR 1976	TOTAL	38101	MEAN 104	MAX 403	MIN 37	AC-FT	75570
WTR YR 1977	TOTAL	22125	MEAN 60.6	MAX 246	MIN 35	AC-FT	43880

NOTE.--No gage-height record Nov. 18 to Dec. 18.

14076500 DESCHUTES RIVER NEAR CULVER, OR

LOCATION.--Lat 44°29'56", long 121°19'12", in NW¼SE¼ sec.29, T.12 S., R.12 E., Jefferson County, Hydrologic Unit 17070301, on right bank 2.5 mi (4.0 km) downstream from Squaw Creek, 6.0 mi (9.7 km) southwest of Culver, and at mile 120.6 (194.0 km).

DRAINAGE AREA.--2,705 mi^2 (7,006 km^2).

PERIOD OF RECORD.--July 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,980 ft (603 m) above mean sea level (river-profile survey). July 14, 1952, to Sept. 30, 1961, at site 4.1 mi (6.6 km) downstream at different datum.

REMARKS.--Records excellent. Slight regulation by Crescent Lake and Crane Prairie and Wickiup Reservoirs (see elsewhere in this report). Many diversions for irrigation above station.

AVERAGE DISCHARGE.--25 years, 927 ft^3/s (26.25 m^3/s), 671,600 acre-ft/yr (828 hm^3).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,680 ft^3/s (189 m^3/s) Dec. 24, 1964, gage height, 10.00 ft (3.048 m), from rating curve extended above 2,200 ft^3/s (62.3 m^3/s) on basis of slope-area measurement of peak flow; minimum, 418 ft^3/s (11.8 m^3/s) July 7, 8, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,650 ft^3/s (46.7 m^3/s) Jan. 10, gage height, 4.67 ft (1.423 m); minimum, 477 ft^3/s (13.5 m^3/s) Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	566	1380	1550	1510	1300	1110	1050	502	493	493	489	511
2	566	1440	1520	1520	1290	1100	999	505	521	493	486	505
3	563	1410	1540	1510	1270	1110	995	508	543	493	486	508
4	549	1400	1550	1490	1220	1110	824	499	536	499	486	508
5	543	1390	1580	1470	1220	1140	703	502	720	502	489	505
6	540	1390	1570	1400	1220	1150	599	502	720	493	486	496
7	540	1380	1570	1340	1220	1150	569	502	665	499	489	496
8	566	1350	1580	1390	1220	1160	579	502	595	499	489	499
9	576	1410	1580	1390	1220	1160	589	499	563	496	489	496
10	576	1410	1580	1460	1220	1160	582	505	540	496	489	493
11	553	1390	1560	1520	1220	1170	576	556	511	493	489	496
12	612	1390	1530	1560	1180	1090	556	615	496	489	489	496
13	612	1350	1520	1530	1180	1070	517	521	499	489	489	496
14	559	1340	1460	1470	812	727	517	508	496	493	493	493
15	553	1130	1450	1460	632	609	514	502	493	502	493	493
16	549	1090	1480	1230	589	585	511	527	493	499	489	493
17	549	1070	1510	1180	543	546	508	543	489	499	489	496
18	546	1100	1500	1120	530	645	508	505	489	502	489	508
19	563	1270	1480	874	870	1090	514	499	489	502	486	508
20	592	1400	1070	835	1080	1260	530	489	489	499	486	508
21	635	1220	1010	839	1080	1290	514	493	489	493	486	524
22	619	1270	1020	1060	1080	1300	521	489	489	493	480	530
23	635	1250	1360	1350	1090	1300	511	489	489	489	483	508
24	999	1220	1510	1400	1110	936	511	489	486	489	493	508
25	1320	1320	1560	1420	1110	944	511	489	486	489	499	511
26	1320	1420	1600	1400	1110	980	521	486	486	493	505	514
27	1320	1430	1580	1390	1100	999	511	486	486	493	505	521
28	1320	1470	1570	1370	1100	995	502	486	486	489	514	517
29	1360	1530	1580	1330	---	995	502	489	489	486	508	549
30	1340	1550	1570	1300	---	1030	502	493	489	489	517	592
31	1330	---	1530	1320	---	1050	---	493	---	486	514	---
TOTAL	23471	40170	46090	41438	29816	31961	17866	15673	15715	15319	15274	15278
MEAN	757	1339	1487	1337	1065	1031	596	506	524	494	493	509
MAX	1360	1550	1600	1560	1300	1300	1050	615	720	502	517	592
MIN	540	1070	1010	835	530	546	502	486	486	486	480	493
AC-FT	46550	79680	91420	82190	59140	63390	35440	31090	31170	30390	30300	30300

CAL YR 1976 TOTAL 414704 MEAN 1133 MAX 2210 MIN 540 AC-FT 822600
WTR YR 1977 TOTAL 308071 MEAN 844 MAX 1600 MIN 480 AC-FT 611100

14079500 CROOKED RIVER NEAR POST, OR

LOCATION.--Lat 44°07'00", long 120°15'00", in NE¼ sec.7, T.17 S., R.21 E., Crook County, Hydrologic Unit 17070304, on left bank 0.3 mi (0.5 km) downstream from North Fork, 12 mi (19 km) southeast of Post, and at mile 113.7 (182.9 km).

DRAINAGE AREA.--2,160 mi² (5,590 km²), approximately, of which 500 mi² (1,300 km²) is probably noncontributing.

PERIOD OF RECORD.--November 1908 to May 1911, December 1939 to September 1960, July 1968 to July 1973. Records for June to August 1911, published in WSP 312, have been found unreliable and should not be used.

REVISED RECORDS.--See PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 3,476.25 ft (1,059.561 m) above mean sea level. Nov. 9, 1908, to Aug. 31, 1911, nonrecording gage at site 0.2 mi (0.3 km) downstream at different datum. Dec. 30, 1939, to Sept. 30, 1960, water-stage recorder at site 0.7 mi (1.1 km) downstream at different datum.

REMARKS.--Records good. No regulation. Many diversions for irrigation above station.

AVERAGE DISCHARGE.--24 years (water years 1941-60, 1969-72), 337 ft³/s (9.544 m³/s), 244,200 acre-ft/yr (301 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft³/s (326 m³/s) Jan. 18, 1971, gage height, 9.61 ft (2.929 m), from rating curve extended above 4,800 ft³/s (136 m³/s) on basis of slope-area measurement of peak flow; minimum, 2.7 ft³/s (0.076 m³/s) Aug. 7, 1970.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1964, reached a stage of 15.00 ft (4.572 m) at nonequivalent site 23 mi (37 km) downstream, discharge, 19,700 ft³/s (558 m³/s).

EXTREMES FOR PERIOD OCTOBER 1972 to JULY 1973.--Maximum daily discharge, 802 ft³/s (22.7 m³/s) Apr. 13; maximum gage height, 6.21 ft (1.893 m) Dec. 22, backwater from ice; minimum daily discharge, 5.0 ft³/s (0.14 m³/s) July 25, 28, 29.

REVISIONS.--Revised figures of discharge for the water year 1973, superseding those published in the report for 1973 are given herein.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	67	74	113	140	624	335	249	39	11		
2	22	67	72	105	110	546	282	221	37	12		
3	19	80	80	100	103	445	270	228	34	14		
4	21	82	70	90	108	355	335	294	31	14		
5	24	80	60	85	120	310	465	395	27	14		
6	26	82	60	80	143	320	516	375	23	12		
7	27	82	55	80	135	298	470	286	21	12		
8	27	80	55	75	136	294	450	260	20	10		
9	27	76	55	75	118	325	505	239	19	12		
10	31	74	60	90	135	345	528	214	15	13		
11	38	72	70	100	188	430	630	185	14	13		
12	41	72	70	150	167	345	700	164	15	13		
13	45	70	70	286	149	282	802	146	15	12		
14	58	70	80	576	152	256	770	125	14	13		
15	88	69	90	375	152	242	644	118	13	14		
16	44	70	120	618	155	263	552	115	14	14		
17	40	72	120	658	167	278	516	105	16	14		
18	39	72	120	465	152	242	440	95	13	14		
19	39	74	150	282	130	263	435	78	14	8.0		
20	39	72	200	185	128	278	425	66	16	11		
21	40	72	600	197	128	340	360	57	16	9.0		
22	40	66	450	179	125	365	365	51	14	10		
23	41	67	370	194	123	310	425	48	13	12		
24	41	66	300	146	130	405	415	55	14	8.0		
25	41	70	260	143	185	522	425	86	13	5.0		
26	39	76	228	152	232	552	440	84	14	6.0		
27	40	72	197	270	290	470	455	66	14	6.0		
28	51	86	170	460	435	400	385	58	13	5.0		
29	57	82	152	564	---	330	320	51	12	5.0		
30	57	78	140	480	---	335	282	47	9.5	6.0		
31	58	---	120	274	---	375	---	44	---	10		
TOTAL	1225	2218	4718	7647	4430	11195	13942	4605	542.5	332.0		
MEAN	39.5	73.9	152	247	158	361	465	149	18.1	10.7		
MAX	88	86	600	658	435	624	802	395	39	14		
MIN	19	66	55	75	103	242	270	44	9.5	5.0		
AC-FT	2430	4400	9360	15170	8790	22210	27650	9130	1080	659		

CAL YR 1972 TOTAL 137752.7 MEAN 376 MAX 6130 MIN 5.9 AC-FT 273200

14080250 BEAR CREEK NEAR PRINEVILLE, OR

LOCATION.--Lat 44°03'40", long 120°43'54", in SE¼ sec.30, T.17 S., R.17 E., Crook County, Hydrologic Unit 17070304, on left bank upstream side of State Highway 27 bridge over Bear Creek, 17 mi (27.4 km) south of Prineville.

DRAINAGE AREA.--205 mi^2 (531 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,280 ft (1,000 m), from topographic map.

REMARKS.--Water-discharge records poor. Flow regulated by reservoirs upstream. Diversion for irrigation above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 848 ft^3/s (24.0 m^3/s) Aug. 6, 1976, gage height, 7.01 ft (2.137 m); minimum, 0.16 ft^3/s (0.005 m^3/s) June 28, June 30 to July 1, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 693 ft^3/s (19.6 m^3/s) June 7, gage height, 6.49 ft (1.978 m); minimum, 0.25 ft^3/s (0.007 m^3/s) July 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	1.7	1.6	1.6	1.2	1.1	1.1	1.2	1.3	.41	1.6	1.9
2	2.9	1.7	1.6	1.6	1.3	1.1	1.1	1.3	1.3	.46	1.6	1.9
3	3.0	1.7	1.7	1.6	1.2	1.0	1.1	1.3	1.3	.41	1.6	1.8
4	2.9	1.6	1.6	1.6	1.3	1.0	1.1	1.3	1.3	.41	1.6	1.8
5	2.9	1.6	1.7	1.6	1.3	1.0	1.1	1.3	1.2	.36	1.6	1.8
6	3.0	1.6	1.7	1.3	1.3	1.0	1.1	1.3	1.3	.36	1.6	1.8
7	3.0	1.6	1.7	1.3	1.3	1.0	1.1	1.3	87	.41	1.6	1.8
8	3.0	1.6	1.8	1.3	1.3	1.0	1.1	1.3	18	.36	1.6	1.8
9	2.2	1.6	1.8	1.2	1.3	1.0	1.1	1.3	5.4	.36	1.7	1.9
10	1.8	1.5	1.7	1.2	1.3	1.0	1.1	1.5	5.2	.36	1.7	1.9
11	1.8	1.7	1.7	1.2	1.3	1.1	1.1	1.5	4.4	.41	1.7	1.9
12	1.8	1.6	1.7	1.2	1.3	1.1	1.1	1.4	4.2	.41	1.7	1.9
13	1.8	1.6	1.7	1.2	1.2	1.1	1.1	1.3	.75	.41	1.7	1.9
14	1.8	1.6	1.7	1.2	1.2	1.2	1.1	1.3	.75	.41	1.7	2.0
15	1.8	1.6	1.7	1.2	1.1	1.2	1.1	1.4	.70	.41	1.7	1.9
16	1.8	1.6	1.9	1.2	1.1	1.2	1.1	1.4	.70	.46	1.7	1.9
17	1.8	1.5	1.9	1.2	1.1	1.2	1.1	1.3	.70	.46	1.7	1.9
18	1.8	1.5	1.7	1.2	1.1	1.2	1.2	1.3	.63	.46	1.7	1.9
19	1.8	1.5	1.7	1.2	1.1	1.2	1.2	1.3	.69	.41	1.7	1.9
20	1.8	1.5	1.7	1.2	1.1	1.2	1.3	1.1	.63	.46	1.7	1.9
21	1.7	1.5	1.6	1.2	1.1	1.2	1.3	1.3	.57	.41	1.7	1.8
22	1.7	1.5	1.6	1.2	1.1	1.2	1.3	1.3	.57	.41	1.7	1.8
23	1.7	1.5	1.6	1.2	1.1	1.1	1.2	1.3	.55	1.7	1.7	1.8
24	1.7	1.5	1.6	1.2	1.1	1.1	1.2	1.4	.55	1.7	1.7	1.8
25	1.7	1.6	1.5	1.2	1.1	1.1	1.2	1.4	.52	1.7	1.7	1.8
26	1.7	1.5	1.5	1.1	1.1	1.1	1.2	1.3	.46	1.7	1.7	1.8
27	1.7	1.6	1.5	1.1	1.1	1.1	1.2	1.3	.41	1.6	1.7	1.8
28	1.7	1.7	1.5	1.1	1.1	1.1	1.2	1.3	.46	1.6	1.7	1.8
29	1.7	1.6	1.5	1.1	---	1.1	1.2	1.3	.46	1.5	1.8	1.9
30	1.7	1.6	1.6	1.1	---	1.1	1.2	1.3	.41	1.5	1.8	1.9
31	1.7	---	1.6	1.2	---	1.1	---	1.3	---	1.6	1.8	---
TOTAL	64.3	47.5	51.4	39.0	33.2	34.2	34.6	40.9	142.41	23.62	52.2	55.6
MEAN	2.07	1.58	1.66	1.26	1.19	1.10	1.15	1.32	4.75	.76	1.68	1.85
MAX	3.0	1.7	1.9	1.6	1.3	1.2	1.3	1.5	87	1.7	1.8	2.0
MIN	1.7	1.5	1.5	1.1	1.1	1.0	1.1	1.1	.41	.36	1.6	1.8
CFSM	.01	.008	.008	.006	.006	.005	.006	.006	.02	.004	.008	.009
IN.	.01	.01	.01	.01	.01	.01	.01	.01	.03	.00	.01	.01
AC-FT	128	94	102	77	66	68	69	81	282	47	104	110

CAL YR 1976 TOTAL 1804.11 MEAN 4.93 MAX 244 MIN .20 CFSM .02 IN .33 AC-FT 3580
WTR YR 1977 TOTAL 618.93 MEAN 1.70 MAX 87 MIN .36 CFSM .008 IN .11 AC-FT 1230

14080250 BEAR CREEK NEAR PRINEVILLE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1976 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1975 to September 1976 (discontinued).
SUSPENDED SEDIMENT DISCHARGE: October 1975 to current year.

REMARKS.--Random temperature measurements were made at time of sediment sampling and are available at the district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum observed, 21.0°C July 23, Aug. 10, 1976; minimum observed, 0.0°C Nov. 18, 1975, Feb. 4, 1976.
SEDIMENT CONCENTRATIONS: Maximum daily, 35,000 mg/l Aug. 6, 1976; minimum daily, 15 mg/l Oct. 30 to Nov. 8, 1976.
SEDIMENT DISCHARGE: Maximum daily, 43,000 tons (39,000 tonnes) Aug. 6, 1976; minimum daily, 0.03 tons (0.03 tonnes) June 28 to July 1, 1976.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 7,480 mg/l June 7; minimum daily, 15 mg/l Oct. 30 to Nov. 8.
SEDIMENT DISCHARGE: Maximum daily, 7,800 tons (7,076 tonnes) June 7; minimum daily, 0.06 tons (.05 tonnes) Nov. 4-8.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	DISSOLVED OXYGEN (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)
JUL 22...	1400	.42	23.5	8.8	12.2	610	36	20	50	26	47	2.2

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)
JUL 22...	360	0	25	8.9	.3	.06	230	0	1.3	373	.42	.51

DATE	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
JUN 07...	34	49	69	89	96	98	99	99	100

14080250 BEAR CREEK NEAR PRINEVILLE, OR--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	48	0.38	15	0.07	128	0.55	107	0.46	104	0.34	90	0.27
2	46	0.36	15	0.07	125	0.54	106	0.46	107	0.38	86	0.26
3	44	0.36	15	0.07	124	0.57	106	0.46	109	0.35	84	0.23
4	42	0.33	15	0.06	123	0.53	110	0.48	105	0.37	100	0.27
5	40	0.31	15	0.06	120	0.55	115	0.50	100	0.35	110	0.30
6	39	0.32	15	0.06	117	0.54	125	0.44	108	0.38	107	0.29
7	38	0.31	15	0.06	111	0.51	101	0.35	117	0.41	103	0.28
8	37	0.30	15	0.06	100	0.49	100	0.35	114	0.40	99	0.27
9	37	0.22	30	0.13	109	0.53	99	0.32	110	0.39	102	0.28
10	37	0.18	25	0.10	112	0.51	98	0.32	106	0.37	105	0.28
11	37	0.18	94	0.43	240	1.1	103	0.33	112	0.39	108	0.32
12	37	0.18	95	0.41	245	1.1	109	0.35	118	0.41	108	0.32
13	36	0.17	97	0.42	142	0.65	115	0.37	120	0.39	109	0.32
14	36	0.17	89	0.38	123	0.56	103	0.33	116	0.38	109	0.35
15	36	0.17	83	0.36	123	0.56	91	0.29	108	0.32	109	0.35
16	36	0.17	77	0.33	122	0.63	92	0.30	100	0.38	109	0.35
17	35	0.17	83	0.34	122	0.63	92	0.30	106	0.31	108	0.35
18	35	0.17	89	0.36	119	0.55	91	0.29	112	0.33	108	0.35
19	35	0.17	95	0.38	115	0.53	90	0.29	118	0.35	107	0.35
20	34	0.17	101	0.41	111	0.51	90	0.29	115	0.34	107	0.35
21	34	0.16	108	0.44	105	0.45	89	0.29	112	0.33	106	0.34
22	34	0.16	111	0.45	97	0.42	94	0.30	109	0.32	106	0.34
23	34	0.16	114	0.46	110	0.48	99	0.32	101	0.30	105	0.31
24	33	0.15	116	0.47	129	0.56	99	0.32	93	0.28	107	0.32
25	32	0.15	118	0.51	138	0.56	99	0.32	85	0.25	110	0.33
26	27	0.12	119	0.48	124	0.50	99	0.29	90	0.27	113	0.34
27	23	0.11	123	0.53	108	0.44	107	0.32	94	0.28	116	0.34
28	19	0.09	128	0.59	93	0.38	119	0.35	99	0.29	117	0.35
29	16	0.07	136	0.59	97	0.39	113	0.34	---	---	118	0.35
30	15	0.07	134	0.58	102	0.44	107	0.32	---	---	119	0.35
31	15	0.07	---	---	107	0.46	101	0.33	---	---	120	0.36
TOTAL	---	6.10	---	9.66	---	17.22	---	10.78	---	9.58	---	9.87

DAY	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	130	0.41	112	0.36	112	0.39	106	0.12	115	0.50	73	0.37
2	155	0.46	112	0.39	111	0.39	105	0.13	115	0.50	74	0.38
3	142	0.42	111	0.39	111	0.39	105	0.12	115	0.50	75	0.36
4	128	0.38	111	0.39	111	0.39	105	0.12	115	0.50	76	0.37
5	113	0.34	110	0.39	110	0.36	102	0.10	114	0.49	77	0.37
6	100	0.30	110	0.39	110	0.39	109	0.11	114	0.49	78	0.38
7	103	0.31	110	0.39	7480	7800	109	0.12	114	0.49	79	0.38
8	106	0.31	109	0.38	129	3.2	110	0.11	113	0.49	80	0.39
9	109	0.32	109	0.38	110	1.6	110	0.11	113	0.52	81	0.39
10	111	0.33	109	0.44	110	1.5	111	0.11	113	0.52	82	0.42
11	110	0.33	108	0.44	110	1.3	112	0.12	112	0.51	83	0.43
12	109	0.32	108	0.41	110	1.2	112	0.12	112	0.51	84	0.43
13	106	0.31	108	0.38	110	0.22	113	0.13	112	0.51	85	0.44
14	103	0.31	107	0.38	109	0.22	114	0.13	112	0.51	86	0.44
15	100	0.30	107	0.40	109	0.21	114	0.13	112	0.51	87	0.45
16	99	0.29	107	0.40	109	0.21	115	0.14	111	0.51	88	0.45
17	98	0.29	107	0.38	109	0.21	116	0.14	110	0.50	88	0.45
18	98	0.32	108	0.38	109	0.19	116	0.14	110	0.50	89	0.46
19	97	0.31	108	0.38	108	0.20	117	0.13	109	0.50	89	0.46
20	97	0.34	109	0.32	108	0.18	117	0.15	107	0.49	89	0.46
21	99	0.35	109	0.38	108	0.17	118	0.13	105	0.48	89	0.43
22	98	0.34	110	0.39	108	0.17	118	0.13	103	0.47	89	0.43
23	99	0.32	111	0.39	107	0.16	118	0.54	100	0.46	89	0.43
24	100	0.32	111	0.42	107	0.16	118	0.54	97	0.45	90	0.44
25	101	0.33	112	0.42	107	0.15	117	0.54	93	0.43	90	0.44
26	103	0.33	113	0.40	107	0.13	117	0.54	90	0.41	90	0.44
27	105	0.34	114	0.40	107	0.12	117	0.51	87	0.40	90	0.44
28	107	0.35	113	0.40	106	0.13	116	0.50	84	0.39	90	0.44
29	107	0.35	112	0.39	106	0.13	116	0.47	81	0.39	90	0.46
30	108	0.35	112	0.39	106	0.12	116	0.47	78	0.38	90	0.46
31	---	---	112	0.39	---	---	116	0.50	76	0.37	---	---
TOTAL	---	10.08	---	12.14	---	7814.19	---	7.35	---	14.68	---	12.71

14080400 PRINEVILLE RESERVOIR NEAR PRINEVILLE, OR

LOCATION.--Lat 44°06'50", long 120°46'50", in SW¼NW¼ sec.11, T.17 S., R.16 E., Crook County, Hydrologic Unit 17070304, at right end of Prineville Dam on Crooked River, 13.8 mi (22.2 km) south of Prineville, and at mile 72.5 (116.7 km).

DRAINAGE AREA.--2,700 mi^2 (6,990 km^2) approximately, of which 500 mi^2 (1,300 km^2) is probably noncontributing.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to Aug. 13, 1969, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam with ungated concrete spillway and concrete outlet tunnel controlled by two 4-ft (1.2 m) by 6-ft (1.8 m) regulating gates. Storage began in December 1960. Total capacity at elevation 3,234.80 ft (985.967 m), crest of spillway, is 154,700 acre-ft (191 hm^3), of which 152,800 acre-ft (188 hm^3) is active storage above 3,114.00 ft (949.147 m), proposed minimum pool. Reservoir used for flood control, irrigation, and recreation. Figures given herein represent active storage.

COOPERATION.--Gage inspected and capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 165,800 acre-ft (204 hm^3) Dec. 27, 1964, elevation, 3,238.95 ft (987.232 m); minimum, 38,100 acre-ft (47.0 hm^3) Sept. 30, 1977, elevation, 3,178.00 ft (968.654 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 106,000 acre-ft (131 hm^3) Oct. 1, elevation, 3,217.16 ft (980.596 m); minimum, 38,100 acre-ft (47.0 hm^3) Sept. 30, elevation, 3,178.00 ft (968.654 m).

Capacity table (elevation, in feet, and usable contents, in acre-feet)

3,175	34,600	3,210	90,400
3,180	40,600	3,215	101,100
3,185	47,400	3,220	112,600
3,190	54,700	3,230	138,700
3,195	62,600	3,235	153,400
3,200	71,200	3,239	165,900
3,205	80,400		

ELEVATION, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3216.99	3212.40	3211.05	3211.10	3211.33	3212.75	3214.33	3213.88	3215.35	3207.95	3197.77	3185.98
2	3216.84	3212.35	3211.10	3211.10	3211.35	3212.77	3214.35	3213.84	3215.07	3207.70	3197.41	3185.66
3	3216.70	3212.23	3211.19	3211.10	3211.37	3212.87	3214.41	3213.72	3214.80	3207.45	3196.97	3185.24
4	3216.60	3212.20	3211.20	3211.10	3211.40	3212.90	3214.51	3213.56	3214.53	3207.22	3196.35	3185.17
5	3216.50	3212.10	3211.23	3211.09	3211.45	3213.00	3214.61	3213.44	3214.32	3207.00	3196.10	3184.80
6	3216.39	3211.95	3211.23	3211.07	3211.47	3213.00	3214.72	3213.35	3214.04	3206.78	3195.72	3184.46
7	3216.24	3211.80	3211.28	3211.03	3211.54	3213.05	3214.93	3213.35	3213.79	3206.48	3195.30	3184.00
8	3216.03	3211.66	3211.33	3211.02	3211.57	3213.08	3215.16	3213.24	3213.52	3206.19	3194.96	3183.90
9	3215.91	3211.51	3211.33	3211.00	3211.65	3213.15	3215.24	3213.23	3213.25	3205.82	3194.61	3183.65
10	3215.70	3211.42	3211.35	3210.96	3211.73	3213.24	3215.32	3213.13	3213.00	3205.50	3194.21	3183.34
11	3215.52	3211.31	3211.35	3210.96	3211.75	3213.31	3215.34	3213.33	3212.75	3205.28	3193.74	3183.10
12	3215.36	3211.19	3211.35	3210.96	3211.80	3213.38	3215.40	3214.27	3212.48	3204.92	3193.37	3182.78
13	3215.20	3211.01	3211.38	3210.95	3211.87	3213.41	3215.41	3214.74	3212.20	3204.52	3192.94	3182.50
14	3215.06	3210.92	3211.38	3210.95	3211.95	3213.48	3215.42	3215.06	3211.88	3204.20	3192.60	3182.00
15	3214.85	3210.93	3211.38	3210.95	3212.00	3213.51	3215.46	3215.22	3211.54	3203.80	3192.21	3181.55
16	3214.70	3210.93	3211.36	3210.95	3212.07	3213.53	3215.46	3215.37	3211.20	3203.48	3191.92	3181.22
17	3214.53	3210.99	3211.30	3210.95	3212.15	3213.58	3215.40	3215.50	3210.98	3203.16	3191.46	3180.88
18	3214.36	3211.02	3211.30	3210.95	3212.17	3213.61	3215.34	3215.59	3210.65	3202.78	3191.11	3180.55
19	3214.21	3211.05	3211.28	3210.96	3212.25	3213.74	3215.25	3215.64	3210.35	3202.45	3190.75	3180.30
20	3214.05	3211.10	3211.21	3211.00	3212.33	3213.76	3215.15	3215.77	3210.10	3202.12	3190.34	3180.02
21	3213.92	3211.18	3211.20	3211.03	3212.36	3213.80	3215.15	3215.77	3209.93	3201.72	3189.92	3179.72
22	3213.73	3211.18	3211.20	3211.05	3212.43	3213.84	3215.04	3215.78	3209.72	3201.30	3189.34	3179.42
23	3213.59	3211.18	3211.19	3211.10	3212.45	3213.90	3214.91	3215.78	3209.52	3201.10	3189.17	3179.14
24	3213.43	3211.15	3211.17	3211.15	3212.47	3213.92	3214.86	3215.81	3209.32	3200.60	3188.82	3178.90
25	3213.30	3211.12	3211.15	3211.20	3212.53	3214.02	3214.69	3215.83	3209.10	3200.30	3188.32	3178.70
26	3213.16	3211.10	3211.10	3211.23	3212.55	3214.07	3214.60	3215.84	3208.90	3199.90	3188.11	3178.41
27	3213.10	3211.07	3211.10	3211.23	3212.57	3214.13	3214.46	3215.84	3208.72	3199.63	3187.66	3178.24
28	3212.93	3211.07	3211.10	3211.25	3212.73	3214.14	3214.35	3215.91	3208.55	3199.16	3187.30	3178.15
29	3212.78	3211.06	3211.10	3211.25	---	3214.22	3214.18	3215.91	3208.35	3198.78	3186.90	3178.06
30	3212.60	3211.05	3211.10	3211.27	---	3214.25	3214.03	3215.81	3208.20	3198.43	3186.60	3178.00
31	3212.40	---	3211.10	3211.30	---	3214.33	---	3215.61	---	3198.06	3186.16	---
MEAN	3214.73	3211.37	3211.23	3211.07	3211.97	3213.54	3214.92	3214.81	3211.54	3203.35	3191.88	3181.59
MAX	3216.99	3212.40	3211.38	3211.30	3212.73	3214.33	3215.46	3215.91	3215.35	3207.95	3197.77	3185.98
MIN	3212.40	3210.92	3211.05	3210.95	3211.33	3212.75	3214.03	3213.13	3208.20	3198.06	3186.16	3178.00
(†)	95,410	92,560	92,660	93,080	96,120	99,590	98,930	102,400	86,720	67,790	49,050	38,100
(‡)	-10,590	-2,850	+100	+420	+3,040	+3,470	-660	+3,470	-15,680	-18,930	-18,740	-10,950

CAL YR 1976 MEAN 3221.37 MAX 3237.81 MIN 3210.92 AC-FT ‡ -630
WTR YR 1977 MEAN 3207.66 MAX 3216.99 MIN 3178.00 AC-FT ‡ -67,900

† Contents, in acre-feet, at 2400, on last day of month.

‡ Change in contents, in acre-feet.

14080500 CROOKED RIVER NEAR PRINEVILLE, OR

LOCATION.--Lat 44°06'50", long 120°47'40", in SW¼NE¼ sec.10, T.17 S., R.16 E., Crook County, Hydrologic Unit 17070304, on right bank 0.4 mi (0.6 km) downstream from Prineville Dam, 13.6 mi (21.9 km) south of Prineville, and at mile 72.1 (116.0 km).

DRAINAGE AREA.--2,700 mi² (7,000 km²), approximately, of which 500 mi² (1,300 km²) is probably noncontributing.

PERIOD OF RECORD.--November 1908 to September 1914, March 1941 to current year. Published as "near Prineville" 1908-12, as "at Hoffman's ranch, near Prineville" 1913-14, and as "above Hoffman Dam, near Prineville" March 1941 to September 1960. The estimate of monthly mean discharge for October 1908, published in WSP 370, has been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1448: 1909-13, 1914(M), drainage area (at sites prior to Apr. 24, 1961). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 3,070.85 ft (935.995 m) above mean sea level (levels by Bureau of Reclamation.) Prior to September 1914, nonrecording gage at several sites from 9 mi (14 km) to 23 mi (37 km) downstream at various datums. Mar. 26, 1941, to Apr. 23, 1961, water-stage recorder at site 5.5 mi (8.8 km) downstream at different datum.

REMARKS.--Records good. Flow completely regulated since Decmeber 1960 by Prineville Reservoir (see station 14080400). Diversions for irrigation above station. Discharge not adjusted for storage or release from Prineville Reservoir as evaporation from reservoir at times exceeds natural flow.

AVERAGE DISCHARGE.--24 years (water years 1910-14, 1942-60), 378 ft³/s (10.70 m³/s), 273,700 acre-ft/yr (337 hm³/yr); 17 years (water years 1961-77), 296 ft³/s (8.38 m³/s), 214,500 acre-ft/yr (264 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,410 ft³/s (238 m³/s) Mar. 26, 1952, gage height, 8.2 ft (2.50 m), from floodmark, site and datum then in use; no flow Aug. 13-21, 1959, Jan. 3-5, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 396 ft³/s (11.2 m³/s) Dec. 20, gage height, 3.92 ft (1.195 m); minimum, 8.0 ft³/s (0.23 m³/s) Dec. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	246	200	49	62	34	35	34	203	306	193	316	244
2	246	145	50	62	34	35	34	189	327	193	340	251
3	246	145	50	62	33	35	35	176	338	193	338	220
4	246	145	50	62	34	34	35	176	343	193	332	220
5	246	145	57	61	34	34	35	176	343	193	332	220
6	246	200	66	61	34	34	35	173	340	235	332	218
7	246	245	66	61	34	34	35	165	340	314	332	218
8	246	245	65	61	34	34	68	165	340	322	332	218
9	246	245	64	61	34	34	114	165	340	322	332	218
10	246	245	66	61	34	34	98	118	340	322	332	218
11	246	244	66	61	34	34	98	78	340	322	332	218
12	246	240	66	61	34	34	114	78	340	319	316	229
13	246	240	89	61	34	34	140	79	363	319	303	244
14	244	162	91	61	34	34	139	79	378	319	303	244
15	244	48	91	61	34	34	146	79	378	327	303	244
16	244	48	91	62	34	34	158	79	378	332	303	242
17	244	48	77	62	34	35	158	79	340	332	303	242
18	244	48	86	62	34	35	158	79	309	332	303	240
19	245	49	88	62	34	35	158	79	240	329	303	220
20	245	48	89	52	34	35	158	89	203	329	303	227
21	245	63	89	38	34	35	158	103	203	329	303	231
22	245	98	89	38	34	35	158	103	203	338	301	208
23	245	98	89	38	35	35	158	103	203	346	298	174
24	245	97	88	38	35	35	158	103	203	346	298	162
25	245	97	88	38	35	35	160	103	205	329	298	152
26	245	97	88	38	35	35	160	103	205	316	286	151
27	245	86	75	38	35	35	171	103	199	316	279	140
28	245	64	63	39	35	35	203	176	193	314	274	110
29	245	64	63	42	---	34	203	226	193	314	272	85
30	245	59	64	42	---	35	203	226	193	314	256	66
31	245	---	63	38	---	35	---	251	---	314	244	---
TOTAL	7603	3958	2261	1646	957	1071	3682	4104	8676	9316	9499	6074
MEAN	245	132	72.9	53.1	34.2	34.5	123	132	288	301	306	202
MAX	246	245	91	62	35	35	203	251	378	346	340	251
MIN	244	48	49	38	33	34	34	78	193	193	244	66
AC-FT	15080	7850	4480	3260	1900	2120	7300	8140	17110	18480	18840	12050

CAL YR 1976 TOTAL 108080 MEAN 295 MAX 2060 MIN 36 AC-FT 214400
WTR YR 1977 TOTAL 58797 MEAN 161 MAX 378 MIN 33 AC-FT 116600

14087400 CROOKED RIVER BELOW OPAL SPRINGS, NEAR CULVER, OR

LOCATION.--Lat 44°29'33", long 121°17'50", in NW¼NE¼ sec.33, T.12 S., R.12 E., Jefferson County, Hydrologic Unit 17070305, on right bank 0.2 mi (0.3 km) downstream from Opal Springs, 4.8 mi (7.7 km) southwest of Culver, and at mile 6.7 (10.8 km).

DRAINAGE AREA.--4,300 mi^2 (11,100 km^2), approximately, of which 500 mi^2 (1,300 km^2) is probably noncontributing.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,953.60 ft (595.457 m) above mean sea level (Portland General Electric Co. bench mark).

REMARKS.--Records excellent. Flow regulated since December 1960 by Prineville Reservoir (see station 14080400) and Ochoco Reservoir, capacity, 47,500 acre-ft (58.6 hm^3). Many diversions for irrigation above station. Practically all of the summer flow comes from Opal Springs and other springs within 15 mi (24 km) above station. Simultaneous records (1961-63) at former gaging station 5.6 mi (9.0 km) downstream indicated over 15 percent increase to summer flow from springs below this station.

AVERAGE DISCHARGE.--16 years, 1,540 ft^3/s (43.61 m^3/s), 1,116,000 acre-ft/yr (1.38 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,660 ft^3/s (189 m^3/s) Dec. 24, 1964, gage height, 9.36 ft (2.853 m); minimum, 912 ft^3/s (25.8 m^3/s) Aug. 13-15, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,710 ft^3/s (48.4 m^3/s) Oct. 22, gage height, 2.93 ft (0.893 m); minimum, 1,110 ft^3/s (31.4 m^3/s) Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1420	1530	1320	1310	1270	1230	1210	1180	1170	1170	1200	1290
2	1460	1450	1310	1310	1260	1230	1210	1200	1170	1160	1200	1260
3	1480	1440	1310	1310	1260	1220	1210	1230	1180	1170	1180	1250
4	1490	1440	1310	1310	1260	1220	1210	1200	1180	1180	1180	1230
5	1500	1440	1310	1300	1260	1230	1210	1210	1190	1180	1190	1230
6	1510	1450	1300	1270	1260	1240	1180	1220	1210	1180	1200	1210
7	1530	1530	1320	1290	1260	1240	1180	1210	1210	1170	1180	1200
8	1530	1530	1320	1300	1260	1230	1180	1220	1220	1220	1180	1190
9	1530	1530	1320	1300	1260	1220	1170	1240	1200	1200	1200	1190
10	1530	1530	1310	1310	1260	1220	1200	1250	1190	1200	1180	1180
11	1530	1530	1310	1320	1250	1230	1260	1560	1200	1200	1170	1190
12	1530	1530	1320	1310	1250	1230	1210	1340	1200	1190	1170	1190
13	1570	1530	1310	1310	1250	1230	1170	1300	1230	1190	1190	1190
14	1570	1530	1320	1310	1250	1240	1170	1240	1220	1170	1170	1180
15	1560	1500	1340	1300	1250	1240	1200	1230	1230	1170	1190	1190
16	1570	1360	1350	1300	1260	1230	1160	1240	1210	1160	1200	1200
17	1560	1340	1350	1340	1260	1230	1160	1200	1220	1160	1170	1210
18	1580	1330	1340	1340	1260	1230	1180	1190	1230	1200	1190	1200
19	1590	1330	1330	1350	1260	1240	1190	1200	1200	1200	1170	1230
20	1600	1330	1340	1380	1250	1250	1190	1180	1190	1190	1190	1260
21	1620	1320	1380	1370	1250	1250	1200	1170	1180	1190	1190	1240
22	1650	1330	1390	1370	1240	1240	1230	1170	1170	1190	1190	1260
23	1640	1370	1430	1320	1240	1240	1220	1190	1180	1200	1180	1280
24	1600	1380	1360	1270	1220	1230	1200	1200	1190	1200	1190	1250
25	1560	1380	1350	1270	1210	1220	1200	1190	1190	1220	1220	1260
26	1540	1360	1350	1270	1210	1220	1200	1180	1170	1220	1260	1260
27	1540	1360	1340	1260	1230	1230	1160	1160	1190	1210	1280	1250
28	1540	1360	1340	1270	1240	1240	1160	1170	1190	1200	1280	1250
29	1540	1330	1320	1260	---	1240	1160	1170	1180	1190	1320	1310
30	1540	1330	1320	1270	---	1240	1170	1200	1190	1190	1300	1270
31	1540	---	1320	1270	---	1220	---	1180	---	1190	1310	---
TOTAL	47950	42700	41340	40470	34990	38200	35770	37820	35880	36860	37420	36900
MEAN	1547	1423	1334	1305	1250	1232	1192	1220	1196	1189	1207	1230
MAX	1650	1530	1430	1380	1270	1250	1260	1560	1230	1220	1320	1310
MIN	1420	1320	1300	1260	1210	1220	1160	1160	1170	1160	1170	1180
AC-FT	95110	84700	82000	80270	69400	75770	70950	75020	71170	73110	74220	73190

CAL YR 1976 TOTAL 571380 MEAN 1561 MAX 3800 MIN 1250 AC-FT 1133000
WTR YR 1977 TOTAL 466300 MEAN 1278 MAX 1650 MIN 1160 AC-FT 924900

14088000 LAKE CREEK NEAR SISTERS, OR

LOCATION.--Lat 44°25'35", long 121°43'30", in NE¼SW¼ sec.24, T.13 S., R.8 E., Deschutes County, Hydrologic Unit 17070301, on left bank 300 ft (91 m) downstream from Suttle Lake and 13 mi (21 km) northwest of Sisters.

DRAINAGE AREA.--22.2 mi^2 (57.5 km^2).

PERIOD OF RECORD.--June to November 1911, March to September 1912, May to October 1913, April 1915 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1124: 1943, 1947. WSP 1218: Drainage area. WSP 1448: 1916(M), 1925.

GAGE.--Water-stage recorder. Datum of gage is 3,431.68 ft (1,045.976 m) above mean sea level. Prior to Apr. 1, 1916, nonrecording gage at two sites 400 ft (122 m) upstream at different datums. Apr. 1, 1916, to Oct. 12, 1928, nonrecording gage or water-stage recorder at site 640 ft (195 m) downstream at different datum. Oct. 13, 1928, to Aug. 13, 1967, water-stage recorder at site 600 ft (183 m) downstream at datum 1.61 ft (0.491 m) lower.

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--62 years (water years 1916-77), 52.8 ft^3/s (1.495 m^3/s), 38,250 acre-ft/yr (47.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge not determined, Dec. 23, 1964; maximum daily discharge, 500 ft^3/s (14.2 m^3/s) Dec. 23, 1964; minimum discharge, 1.0 ft^3/s (0.028 m^3/s) Nov. 4, 5, 1940; minimum daily, 8 ft^3/s (0.23 m^3/s) Nov. 5, 1940, Oct. 6, 1942.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 52 ft^3/s (1.47 m^3/s) May 10, gage height, 2.28 ft (0.695 m); minimum, 24 ft^3/s (0.68 m^3/s) Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	38	36	36	36	42	35	41	42	34	30	29
2	35	37	36	39	35	38	33	42	40	32	30	29
3	34	36	36	38	35	37	32	45	42	31	29	29
4	33	35	37	37	35	34	31	45	42	31	29	29
5	33	34	36	37	35	34	31	46	41	31	29	29
6	33	34	37	36	35	34	32	44	41	32	29	28
7	33	34	38	36	35	43	32	43	42	32	29	28
8	34	34	40	36	35	46	33	43	40	33	28	27
9	34	34	45	36	35	45	33	42	39	32	28	28
10	33	34	40	36	34	40	33	46	40	31	28	29
11	32	34	38	36	35	35	33	42	37	31	28	29
12	33	34	38	37	34	37	33	42	39	31	29	29
13	33	34	37	38	35	35	35	41	39	31	29	29
14	32	36	37	37	35	33	33	42	39	30	29	29
15	33	39	37	36	34	33	34	43	37	31	28	28
16	33	37	37	36	35	33	35	42	37	31	29	28
17	32	36	37	35	34	33	34	42	38	30	31	28
18	32	36	37	36	34	34	35	40	37	30	30	31
19	32	34	36	36	34	34	32	40	36	30	27	33
20	32	34	36	36	35	33	30	39	36	31	28	32
21	32	38	37	36	37	32	35	40	36	30	29	30
22	33	45	37	36	40	32	27	40	35	31	27	29
23	32	40	38	36	37	33	29	43	36	30	27	31
24	34	39	37	35	36	33	34	42	35	31	33	33
25	42	36	37	35	36	32	35	41	35	32	34	32
26	37	36	39	35	35	33	35	44	34	32	33	31
27	34	36	39	35	35	39	36	44	33	31	30	31
28	33	36	37	35	39	37	37	43	33	29	29	34
29	33	36	36	35	---	33	38	41	33	28	31	32
30	33	36	36	35	---	32	39	42	34	29	31	30
31	36	---	36	36	---	33	---	43	---	30	29	---
TOTAL	1040	1082	1160	1119	990	1102	1004	1313	1128	958	910	894
MEAN	33.5	36.1	37.4	36.1	35.4	35.5	33.5	42.4	37.6	30.9	29.4	29.8
MAX	42	45	45	39	40	46	39	46	42	34	34	34
MIN	32	34	36	35	34	32	27	39	33	28	27	27
AC-FT	2060	2150	2300	2220	1960	2190	1990	2600	2240	1900	1800	1770

CAL YR 1976 TOTAL 21161 MEAN 57.8 MAX 166 MIN 32 AC-FT 41970
WTR YR 1977 TOTAL 12700 MEAN 34.8 MAX 46 MIN 27 AC-FT 25190

14091500 METOLIUS RIVER NEAR GRANDVIEW, OR

LOCATION.--Lat 44°37'33", long 121°28'55", in SE¼SW¼ sec.12, T.11 S., R.10 E., Jefferson County, Hydrologic Unit 17070301, Deschutes National Forest, on right bank 1.0 mi (1.6 km) upstream from maximum controlled pool of Lake Billy Chinook, 15.0 mi (24.1 km) northwest of Culver, and at mile 13.6 (21.9 km).

DRAINAGE AREA.--316 mi^2 (818 km^2), at cableway 1.0 mi (1.6 km) downstream, where all discharge measurements are made. Hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--April 1910 to February 1912 (gage heights and discharge measurements only), March 1912 to December 1913, October 1921 to current year. Published as "at Hubbard's ranch, near Sisters" 1910, and as "at Hubbard's ranch, near Grandview" 1910-13.

REVISED RECORDS.--WSP 1448: 1913.

GAGE.--Water-stage recorder. Datum of gage is 1,974.36 ft (601.785 m) above mean sea level (levels by Portland General Electric Co.). Prior to Dec. 31, 1913, nonrecording gage at site 2.3 mi (3.7 km) upstream at different datum. Oct. 1, 1921, to May 3, 1949, nonrecording gage and May 4, 1949, to June 18, 1963, water-stage recorder at site 2.7 mi (4.3 km) downstream at datum 64 ft (19.5 m) lower.

REMARKS.--Records excellent. No regulation. Many small diversions for irrigation above station. Stream is spring fed. Records herein are for measuring site.

AVERAGE DISCHARGE.--57 years (water years 1913, 1922-77), 1,499 ft^3/s (42.45 m^3/s), 1,086,000 acre-ft/yr (1.34 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,530 ft^3/s (213 m^3/s) Dec. 24, 1964, gage height, 6.81 ft (2.076 m); minimum, 1,080 ft^3/s (30.6 m^3/s) Feb. 17, 1932, Oct. 2-31, Nov. 6, 7, 10-14, 1942.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,610 ft^3/s (45.6 m^3/s) June 8, gage height, 1.73 ft (0.527 m); minimum, 1,240 ft^3/s (35.1 m^3/s) Sept. 17, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1510	1570	1420	1390	1350	1360	1330	1350	1410	1320	1300	1270
2	1520	1530	1420	1400	1350	1340	1320	1370	1380	1310	1300	1270
3	1510	1500	1420	1390	1350	1350	1320	1380	1370	1300	1300	1290
4	1490	1480	1420	1390	1350	1340	1320	1360	1480	1300	1300	1330
5	1490	1470	1420	1370	1350	1340	1330	1350	1500	1290	1300	1300
6	1490	1470	1410	1340	1340	1340	1330	1350	1520	1280	1300	1280
7	1490	1460	1410	1370	1340	1350	1340	1340	1560	1290	1290	1270
8	1490	1460	1430	1360	1340	1380	1350	1330	1570	1290	1300	1270
9	1490	1450	1420	1340	1340	1380	1320	1320	1480	1300	1290	1260
10	1490	1450	1410	1390	1350	1350	1310	1350	1420	1290	1290	1260
11	1490	1450	1410	1390	1350	1340	1310	1340	1410	1300	1300	1260
12	1480	1450	1410	1390	1350	1340	1310	1330	1400	1310	1300	1260
13	1480	1450	1410	1390	1350	1340	1330	1330	1400	1300	1300	1260
14	1480	1450	1410	1380	1340	1330	1320	1320	1400	1300	1310	1260
15	1480	1490	1410	1380	1340	1330	1320	1320	1390	1300	1300	1260
16	1470	1500	1410	1370	1340	1330	1320	1320	1380	1300	1300	1250
17	1470	1470	1410	1370	1340	1330	1310	1310	1370	1310	1300	1250
18	1470	1480	1410	1370	1340	1330	1310	1310	1380	1320	1300	1270
19	1470	1460	1400	1370	1340	1330	1310	1310	1380	1300	1300	1270
20	1470	1450	1400	1370	1340	1320	1310	1310	1370	1300	1300	1260
21	1460	1450	1400	1370	1360	1320	1310	1340	1370	1310	1310	1260
22	1460	1450	1400	1370	1350	1320	1310	1340	1340	1300	1290	1250
23	1460	1450	1400	1360	1350	1330	1310	1340	1360	1310	1280	1260
24	1480	1450	1400	1360	1340	1320	1320	1330	1350	1310	1330	1300
25	1540	1440	1400	1360	1340	1320	1350	1330	1350	1310	1320	1280
26	1490	1430	1420	1350	1340	1320	1360	1350	1350	1310	1310	1260
27	1480	1420	1410	1360	1340	1350	1340	1350	1340	1300	1260	1260
28	1470	1420	1400	1360	1370	1340	1350	1340	1330	1300	1300	1300
29	1470	1420	1400	1350	---	1330	1350	1330	1340	1290	1320	1280
30	1470	1420	1390	1350	---	1320	1350	1330	1320	1290	1380	1270
31	1480	---	1390	1360	---	1330	---	1350	---	1300	1290	---
TOTAL	45990	43840	43670	42470	37680	41450	39770	41430	42060	40340	40390	38120
MEAN	1484	1461	1409	1370	1346	1337	1326	1336	1402	1301	1303	1271
MAX	1540	1570	1430	1400	1370	1380	1360	1380	1570	1320	1380	1330
MIN	1460	1420	1390	1340	1340	1320	1310	1310	1320	1280	1280	1250
AC-FT	91220	86960	86620	84240	74740	82220	78880	82180	83430	80010	80110	75610

CAL YR 1976 TOTAL 605330 MEAN 1654 MAX 2470 MIN 1390 AC-FT 1201000
WTR YR 1977 TOTAL 497210 MEAN 1362 MAX 1570 MIN 1250 AC-FT 986200

14092100 LAKE BILLY CHINOOK NEAR METOLIUS, OR

LOCATION.--Lat 44°36'14", long 121°16'40", in SW¼NE¼ sec.22, T.11 S., R.12 E., Jefferson County, Hydrologic Unit 17070301, Warm Springs Indian Reservation, near left end of Round Butte Dam on Deschutes River, 5.0 mi (8.0 km) west of Metolius, and at mile 110.6 (178.0 km).

DRAINAGE AREA.--7,490 mi^2 (19,400 km^2), approximately.

PERIOD OF RECORD.--January 1964 to current year.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Portland General Electric Co.).

REMARKS.--Reservoir is formed by rockfill dam completed in June 1964 by Portland General Electric Co.; storage began Jan. 2, 1964. Total capacity is 534,700 acre-ft (659 hm^3) at elevation 1,945.0 ft (592.84 m) proposed upper limit of operation, and usable capacity is 273,900 acre-ft (337 hm^3) between elevations 1,860.0 ft (566.93 m), proposed lower limit of operation, and 1,945.0 ft (592.84 m). Reservoir used for power generation under FPC license 2030. Figures given herein represent total contents.

COOPERATION.--Gage readings and capacity table furnished by Portland General Electric Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 538,700 acre-ft (664 hm^3) July 15, 16, 1972, elevation, 1,946.00 ft (593.141 m); minimum observed since first filling, 431,100 acre-ft (531 hm^3) Feb. 13, 1972, elevation, 1,917.13 ft (584.341 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 534,700 acre-ft (659 hm^3) June 5, elevation, 1,944.98 ft (592.830 m); minimum observed, 504,600 acre-ft (622 hm^3) Jan. 11, elevation, 1,937.21 ft (590.462 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	1,944.45	532,600	-
Oct. 31	1,942.20	523,700	-8,900
Nov. 30	1,943.66	529,400	+5,700
Dec. 31	1,943.97	530,700	+1,300
CAL YR 1976	-	-	-3,000
Jan. 31	1,938.93	511,200	-19,500
Feb. 28	1,944.38	532,300	+21,100
Mar. 31	1,940.39	516,800	-15,500
Apr. 30	1,940.54	517,300	+500
May 31	1,944.51	532,800	+15,500
June 30	1,944.35	532,200	-600
July 31	1,944.59	533,100	+900
Aug. 31	1,944.23	531,700	-1,400
Sept.30	1,944.58	533,100	+1,400
WTR YR 1977	-	-	+500

14092500 DESCHUTES RIVER NEAR MADRAS, OR

LOCATION.--Lat 44°43'34", long 121°14'45", in SE¼SW¼ sec.1, T.10 S., R.12 E., Jefferson County, Hydrologic Unit 17070306, on right bank 400 ft (122 m) downstream from reregulating dam, 2.7 mi (4.3 km) downstream from Pelton Dam, 8.5 mi (13.7 km) northwest of Madras, and at mile 100.1 (161.1 km).

DRAINAGE AREA.--7,820 mi^2 (20,250 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1923 to current year.

REVISED RECORDS.--WSP 1398: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,390.25 ft (423.748 m) above mean sea level (levels by Portland General Electric Co.). See WSP 1738 for history of changes prior to Nov. 23, 1957.

REMARKS.--Water-discharge records excellent. Diurnal fluctuation caused by Lake Simtustus and reregulating reservoir since 1957, combined capacity for normal operation, 6,500 acre-ft (8.01 hm^3). Some winter and spring runoff stored in Ochoco Reservoir, capacity, 47,500 acre-ft (58.6 hm^3), in Crescent Lake, Crane Prairie and Wickiup Reservoirs, combined capacity, 354,600 acre-ft (437 hm^3), and since 1950, in Prineville Reservoir, capacity, 152,800 acre-ft (188 hm^3), and since 1964, in Lake Billy Chinook, capacity, 534,700 acre-ft (659 hm^3). Large diversions in upper basin for irrigation.

AVERAGE DISCHARGE.--54 years, 4,475 ft^3/s (126.7 m^3/s), 3,242,000 acre-ft/yr (4.00 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 ft^3/s (447 m^3/s) Dec. 28, 1964, gage height, 6.29 ft (1.917 m); maximum gage height, 6.89 ft (2.100 m) Jan. 1, 1943, site and datum then in use; minimum discharge, 1,200 ft^3/s (34.0 m^3/s) Dec. 13, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,450 ft^3/s (211 m^3/s) Jan. 26, gage height, 4.08 ft (1.244 m); minimum, 3,110 ft^3/s (88.1 m^3/s) May 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4430	4810	4530	5570	4230	4530	5380	3800	3570	3800	3850	3940
2	4330	5380	4970	5990	4760	5050	5320	3800	3690	3660	3920	3800
3	4300	5320	4940	5990	4920	5740	5160	3830	3800	3710	3830	3730
4	4280	5320	4920	6080	4350	5880	4330	3780	3760	3760	3830	3690
5	4330	5400	4970	6510	4380	5820	3970	3850	3730	3690	3850	3710
6	4250	5630	5290	6810	5110	5400	4130	3830	4250	3730	3830	3850
7	4200	5600	4970	6840	4730	5050	4040	3780	4350	3780	3800	3800
8	4180	5460	4940	6840	4350	4230	4010	3800	4280	3800	3850	3730
9	4180	5680	5000	6370	3900	4040	3940	3660	4130	3800	3920	3730
10	4130	5630	4940	5770	3940	4060	3920	3620	4010	3830	3800	3660
11	4180	5630	4870	5430	3990	4080	3900	3600	3990	3870	3830	3660
12	4230	5540	4920	5050	3940	4110	3800	3600	3990	3850	3760	3600
13	4380	5520	5000	4840	3940	4080	3640	3570	4040	3920	3690	3600
14	4300	4630	5110	4760	3970	4330	3550	3550	4010	3760	3690	3660
15	4380	4480	5130	4870	3870	4840	3620	3600	4110	3730	3800	3690
16	4450	4760	5080	4160	3760	4760	3660	3640	3940	3800	3870	3710
17	4430	5380	5050	4060	3710	3850	3600	3570	3900	3780	3850	3710
18	4630	5660	5050	3920	3710	3660	3600	3620	3800	3870	3830	3710
19	5240	5430	5130	3660	3550	3690	3550	3570	3800	3970	3900	3710
20	5210	4530	5050	3600	3280	3620	3570	3570	3760	3900	3920	3730
21	5210	4040	5080	3570	3310	3920	3570	3550	3830	3940	3920	3900
22	5270	4040	5080	3570	3420	5430	3600	3600	3870	3850	4010	3920
23	5380	4060	5110	4040	3760	5460	3660	3600	3830	3800	3970	3920
24	5380	4200	4890	4660	3800	5460	3660	3600	3920	3830	3850	3920
25	5270	4300	4840	5430	3990	5020	3780	3620	3990	3780	3900	3900
26	5350	4330	4790	6960	4250	4500	3870	3550	4010	3830	3870	3920
27	5270	4730	4810	6660	4480	4300	3830	3570	3850	3830	3940	3870
28	5380	4890	4840	5350	4580	4480	3850	3550	3760	3870	3920	3900
29	4970	4040	4840	4840	---	5210	3800	3530	3830	3900	4080	3970
30	4550	4080	4810	4530	---	5320	3830	3530	3800	3900	4160	3940
31	4580	---	5020	4330	---	5320	---	3570	---	3780	4110	---
TOTAL	144650	148500	153970	161060	113980	145240	118140	112910	117600	118320	120350	113580
MEAN	4666	4950	4967	5195	4071	4685	3938	3642	3920	3817	3882	3786
MAX	5380	5680	5290	6960	5110	5880	5380	3850	4350	3970	4160	3970
MIN	4130	4040	4530	3570	3280	3620	3550	3530	3570	3660	3690	3600
AC-FT	286900	294500	305400	319500	226100	288100	234300	224000	233300	234700	238700	225300

CAL YR 1976 TOTAL 1868620 MEAN 5106 MAX 7350 MIN 4040 AC-FT 3706000
WTR YR 1977 TOTAL 1568300 MEAN 4297 MAX 6960 MIN 3280 AC-FT 3111000

14092500 DESCHUTES RIVER NEAR MADRAS, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1971 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 18.0°C occurred during period Aug. 1 to Sept. 30, 1974; minimum, 4.5°C Jan. 23, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 14.0°C Aug. 12-31; minimum, 4.5°C Jan. 23.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.5	13.5	10.5	10.5	9.0	9.0	6.5	6.5	5.0	5.0	6.5	6.5
2	13.5	13.0	10.5	10.5	9.0	9.0	6.5	6.5	5.0	5.0	6.5	6.5
3	13.5	13.0	10.5	10.5	9.0	8.5	6.5	6.5	5.0	5.0	6.5	6.5
4	13.0	13.0	10.5	10.5	8.5	8.5	6.5	6.5	5.5	5.0	6.5	6.0
5	13.0	13.0	10.5	10.5	8.5	8.5	6.5	6.0	5.5	5.5	6.0	6.0
6	13.0	13.0	10.5	10.5	8.5	8.5	6.0	6.0	5.5	5.5	6.0	6.0
7	13.0	13.0	10.5	10.5	8.5	8.5	6.0	6.0	5.5	5.5	6.0	6.0
8	13.0	13.0	10.5	10.5	8.5	8.5	6.0	6.0	5.5	5.5	6.0	6.0
9	13.0	12.0	10.5	10.5	8.5	8.0	6.0	6.0	5.5	5.5	6.5	6.0
10	13.0	12.0	10.5	10.5	8.5	8.0	6.0	6.0	6.0	5.5	6.5	6.0
11	13.0	12.0	10.5	10.5	8.0	8.0	6.0	6.0	6.0	6.0	6.5	6.0
12	12.0	11.5	10.5	10.5	8.0	8.0	6.0	5.5	6.0	6.0	6.5	6.5
13	11.5	11.5	10.5	10.0	8.0	7.0	5.5	5.5	6.0	6.0	6.5	6.0
14	11.5	11.5	10.5	10.0	8.0	7.0	5.5	5.5	6.0	6.0	6.5	6.0
15	11.5	11.5	10.5	10.0	7.0	7.0	5.5	5.5	6.0	6.0	6.5	6.0
16	11.5	11.5	10.5	10.0	7.0	7.0	5.5	5.5	6.0	6.0	6.5	6.0
17	11.5	11.5	10.5	10.0	7.0	7.0	5.5	5.5	6.0	6.0	6.5	6.5
18	11.5	11.5	10.5	10.0	7.0	7.0	5.5	5.5	6.0	6.0	6.5	6.5
19	11.5	11.0	10.0	10.0	7.0	7.0	5.5	5.0	6.5	6.0	6.5	6.5
20	11.5	11.0	10.0	10.0	7.0	7.0	5.0	5.0	6.5	6.5	6.5	6.5
21	11.0	11.0	10.0	10.0	7.0	7.0	5.0	5.0	6.5	6.5	6.5	6.5
22	11.0	11.0	10.0	9.5	7.0	7.0	5.0	5.0	6.5	6.5	6.5	6.5
23	11.0	11.0	10.0	9.5	7.0	7.0	5.0	4.5	6.5	6.5	6.5	6.5
24	11.0	11.0	10.0	9.5	7.0	7.0	5.0	5.0	6.5	6.0	6.5	6.5
25	11.0	11.0	9.5	9.5	7.0	7.0	5.0	5.0	6.5	6.0	6.5	6.5
26	11.0	11.0	9.5	9.5	7.0	7.0	5.0	5.0	6.5	6.0	6.5	6.5
27	11.0	11.0	9.5	9.0	7.0	7.0	5.0	5.0	6.5	6.5	6.5	6.5
28	11.0	10.5	9.5	9.0	7.0	7.0	5.0	5.0	6.5	6.5	6.5	6.5
29	11.0	10.5	9.0	9.0	7.0	7.0	5.0	5.0	---	---	6.5	6.5
30	11.0	10.5	9.0	9.0	7.0	7.0	5.0	5.0	---	---	6.5	6.5
31	11.0	10.5	---	---	7.0	6.5	5.0	5.0	---	---	6.5	6.5
MONTH	13.5	10.5	10.5	9.0	9.0	6.5	6.5	4.5	6.5	5.0	6.5	6.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.5	6.5	8.5	8.5	9.5	9.5	11.5	11.5	13.0	13.0		
2	6.5	6.5	8.5	8.5	9.5	9.5	11.5	11.5	13.0	13.0		
3	6.5	6.5	8.5	8.5	9.5	9.5	11.5	11.5	13.0	13.0		
4	6.5	6.5	9.0	8.5	9.5	9.5	11.5	11.5	13.0	13.0		
5	7.0	6.5	8.5	8.5	10.0	9.5	11.5	11.5	13.0	13.0		
6	7.0	7.0	8.5	8.0	10.0	10.0	11.5	11.5	13.5	13.0		
7	8.0	7.0	8.5	8.0	10.0	10.0	11.5	11.5	13.5	13.5		
8	8.0	8.0	8.5	8.0	10.0	10.0	11.5	11.5	13.5	13.5		
9	8.0	7.0	8.5	8.5	10.0	10.0	11.5	11.5	13.5	13.5		
10	8.0	7.0	8.5	8.5	10.0	10.0	11.5	11.5	13.5	13.5		
11	8.0	8.0	8.5	8.5	10.0	10.0	11.5	11.5	13.5	13.5		
12	8.0	7.0	9.0	8.5	10.0	10.0	12.0	11.5	14.0	13.5		
13	8.0	8.0	9.0	8.5	10.0	10.0	12.0	12.0	14.0	14.0		
14	8.0	8.0	9.0	8.5	10.0	10.0	12.0	12.0	14.0	14.0		
15	8.0	8.0	9.0	9.0	10.0	10.0	12.0	12.0	14.0	14.0		
16	8.0	8.0	9.0	9.0	10.0	10.0	13.0	12.0	14.0	14.0		
17	8.0	8.0	9.0	9.0	10.0	10.0	13.0	13.0	14.0	14.0		
18	8.5	8.0	9.0	9.0	10.5	10.5	13.0	13.0	14.0	14.0		
19	9.0	8.5	9.0	9.0	11.0	11.0	13.0	13.0	14.0	14.0		
20	8.5	8.5	9.5	9.0	11.0	11.0	13.0	13.0	14.0	14.0		
21	8.5	8.5	9.5	9.0	11.0	11.0	13.0	13.0	14.0	14.0		
22	8.5	8.5	9.5	9.0	11.0	11.0	13.0	13.0	14.0	14.0		
23	8.5	8.5	9.5	9.5	11.0	11.0	13.0	13.0	14.0	14.0		
24	8.5	8.5	9.5	9.0	11.0	11.0	13.0	13.0	14.0	14.0		
25	8.5	8.5	9.5	9.5	11.0	11.0	13.0	13.0	14.0	14.0		
26	9.0	8.5	9.5	9.5	11.5	11.0	13.0	13.0	14.0	14.0		
27	9.0	8.5	9.5	9.5	11.5	11.5	13.0	13.0	14.0	14.0		
28	9.0	8.5	10.0	9.5	11.5	11.5	13.0	13.0	14.0	14.0		
29	8.5	8.5	10.0	9.0	11.5	11.5	13.0	13.0	14.0	14.0		
30	8.5	8.5	9.5	9.5	11.5	11.5	13.0	13.0	14.0	14.0		
31	---	---	9.5	9.5	---	---	13.0	13.0	14.0	14.0		
MONTH	9.0	6.5	10.0	8.0	11.5	9.5	13.0	11.5	14.0	13.0		

14092885 SHITIKE CREEK BELOW WOLFORD CANYON, NEAR WARM SPRINGS, OR

LOCATION.--Lat 44°46'20", long 121°18'15", in NW¼SE¼ sec.21, T.9 S., R.12 E., Jefferson County, Hydrologic Unit 17070306, Warm Springs Indian Reservation, on left bank at bridge crossing 2.3 mi (3.7 km) upstream from Tenino Creek, and 2.1 mi (3.4 km) northwest of Warm Springs.

DRAINAGE AREA.--75.8 mi^2 (196.3 km^2).

PERIOD OF RECORD.--October 1974 to current year. Records for June 1911 to October 1916, April 1923 to September 1928, and October 1972 to September 1974 (see station 14093000) at sites downstream not equivalent owing to difference in drainage areas.

GAGE.--Water-stage recorder. Altitude of gage is 1,600 ft (488 m), from topographic map.

REMARKS.--Records good. No regulation. Some diversion for irrigation and Warm Springs water supply.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 979 ft^3/s (27.73 m^3/s) Dec. 4, 1975, gage height, 6.57 ft (2.003 m); minimum, 29 ft^3/s (0.82 m^3/s) Aug. 12, 16-20, 22, 23, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 157 ft^3/s (4.45 m^3/s) June 8, no peak above base of 400 ft^3/s (11.3 m^3/s); maximum gage height, 4.82 ft (1.469 m) Jan. 9; minimum discharge, 29 ft^3/s (0.82 m^3/s) Aug. 12, 16-20, 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	65	43	45	42	40	42	69	69	45	33	43
2	54	60	47	45	40	39	40	71	79	45	32	40
3	54	56	45	43	39	39	40	74	68	45	32	39
4	53	54	43	44	38	39	40	69	93	43	32	38
5	50	52	43	44	38	39	42	65	118	43	32	38
6	48	50	43	42	38	39	43	58	116	42	33	38
7	48	48	43	40	36	40	45	56	128	40	33	35
8	48	48	45	40	38	46	50	53	139	40	32	35
9	48	46	46	40	38	45	53	51	100	40	32	35
10	48	46	43	40	38	42	53	54	79	40	32	34
11	48	46	43	40	39	40	51	56	81	39	30	34
12	48	46	43	42	39	42	50	56	79	38	30	33
13	46	46	45	44	39	40	50	53	76	38	32	33
14	44	46	45	46	39	40	50	51	74	38	33	33
15	44	49	45	48	40	39	49	51	71	36	32	33
16	44	63	45	50	40	39	50	51	68	36	30	33
17	44	53	45	47	40	39	49	50	65	36	30	34
18	44	56	45	43	39	39	49	49	66	36	30	35
19	44	51	45	43	39	39	47	47	69	36	30	36
20	44	49	40	42	39	39	46	47	71	35	30	35
21	44	47	58	42	42	39	46	49	66	35	30	42
22	44	47	46	42	40	39	46	61	71	34	30	46
23	44	47	43	40	39	39	46	61	66	34	30	45
24	44	46	46	39	39	39	47	58	56	35	34	60
25	50	46	43	39	39	39	57	56	58	36	42	58
26	65	45	45	38	39	39	71	57	56	35	45	56
27	60	43	50	38	39	45	68	60	53	34	42	50
28	56	45	49	38	42	43	65	57	50	33	40	53
29	54	45	47	38	---	42	68	53	50	33	40	54
30	54	45	47	38	---	40	71	51	47	33	45	53
31	60	---	46	51	---	40	---	51	---	33	49	---
TOTAL	1530	1486	1402	1311	1097	1248	1524	1745	2282	1166	1057	1231
MEAN	49.4	49.5	45.2	42.3	39.2	40.3	50.8	56.3	76.1	37.6	34.1	41.0
MAX	65	65	58	51	42	46	71	74	139	45	49	60
MIN	44	43	40	38	36	39	40	47	47	33	30	33
CFSM	.65	.65	.60	.56	.52	.53	.67	.74	1.00	.50	.45	.54
IN.	.75	.73	.69	.64	.54	.61	.75	.86	1.12	.57	.52	.60
AC-FT	3030	2950	2780	2600	2180	2480	3020	3460	4530	2310	2100	2440

CAL YR 1976 TOTAL 36249 MEAN 99.0 MAX 342 MIN 40 CFSM 1.31 IN 17.79 AC-FT 71900
WTR YR 1977 TOTAL 17079 MEAN 46.8 MAX 139 MIN 30 CFSM .62 IN 8.38 AC-FT 33880

NOTE.--No gage-height record Oct. 3 to Nov. 11.

14097100 WARM SPRINGS RIVER NEAR KAHNEETA HOT SPRINGS, OR

LOCATION.--Lat 44°51'24", long 121°08'55", in SE¼SW¼ sec.23, T.8 S., R.13 E., Wasco County, Hydrologic Unit 17070306, Warm Springs Indian Reservation, on right bank at mile 4.6 (7.4 km).

DRAINAGE AREA.--526 mi^2 (1,362 km^2).

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,400 ft (427 m), from topographic map.

REMARKS.--Records excellent. No regulation. Diversions above station.

AVERAGE DISCHARGE.--5 years, 453 ft^3/s (12.83 m^3/s), 11.70 in/yr (2,972 mm/yr), 328,200 acre-ft/yr (405 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,350 ft^3/s (180 m^3/s) Jan. 16, 1974, gage height, 8.68 ft (2.646 m); minimum, 227 ft^3/s (6.43 m^3/s) Aug. 15, 16, Sept. 6, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 495 ft^3/s (14.0 m^3/s) Jan. 11, 12, gage height, 2.01 ft (0.613 m), no peak above base of 1,700 ft^3/s (48.1 m^3/s); minimum, 189 ft^3/s (5.35 m^3/s) Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	285	309	274	263	263	282	278	289	263	220	210	213
2	289	318	271	271	263	278	282	289	263	220	210	213
3	285	305	278	267	263	274	278	293	267	220	207	213
4	289	296	278	267	260	271	278	314	274	220	207	213
5	289	293	278	263	260	267	278	305	278	220	207	213
6	285	289	278	249	260	267	278	296	278	224	210	213
7	285	289	282	260	260	274	282	289	274	220	210	210
8	285	282	282	260	260	296	285	285	267	220	210	207
9	285	285	293	280	260	305	289	278	263	217	207	210
10	285	285	285	290	263	293	285	285	260	217	207	210
11	285	285	278	300	267	282	282	289	256	217	207	210
12	285	285	274	300	267	278	278	285	256	217	207	207
13	282	285	282	300	271	278	278	278	252	217	210	207
14	282	289	278	285	267	274	278	274	249	217	207	207
15	282	289	278	274	263	271	278	274	245	213	210	207
16	282	296	278	278	263	267	278	274	242	213	207	207
17	282	293	278	278	263	263	278	271	238	217	207	213
18	282	289	278	278	263	263	274	271	238	217	203	217
19	282	289	274	282	260	267	271	267	234	217	207	220
20	282	285	271	278	263	267	267	263	231	217	207	213
21	285	285	267	274	267	263	267	263	234	213	207	213
22	285	282	267	271	271	263	267	267	227	213	207	217
23	285	282	271	267	267	267	267	271	227	213	207	217
24	285	282	271	267	267	271	267	271	224	213	213	227
25	318	282	274	263	263	267	271	267	224	217	231	231
26	318	278	278	249	263	263	285	267	224	217	238	224
27	296	271	293	252	263	278	282	271	220	213	224	220
28	289	267	282	263	278	293	282	274	220	210	220	231
29	289	274	282	260	---	282	282	271	220	210	220	227
30	289	274	278	256	---	274	289	263	220	210	217	231
31	289	---	271	256	---	271	---	263	---	210	217	---
TOTAL	8916	8613	8602	8401	7398	8509	8334	8617	7368	6699	6558	6461
MEAN	288	287	277	271	264	274	278	278	246	216	212	215
MAX	318	318	293	300	278	305	289	314	278	224	238	231
MIN	282	267	267	249	260	263	267	263	220	210	203	207
CFSM	.55	.55	.53	.52	.50	.52	.53	.53	.47	.41	.40	.41
IN.	.63	.61	.61	.59	.52	.60	.59	.61	.52	.47	.46	.46
AC-FT	17680	17080	17060	16660	14670	16880	16530	17090	14610	13290	13010	12820

CAL YR 1976 TOTAL 178833 MEAN 489 MAX 2570 MIN 267 CFSM .93 IN 12.65 AC-FT 354700
WTR YR 1977 TOTAL 94476 MEAN 259 MAX 318 MIN 203 CFSM .49 IN 6.68 AC-FT 187400

14097200 WHITE RIVER NEAR GOVERNMENT CAMP, OR

LOCATION.--Lat 45°10'40", long 121°34'30", in NE¼SW¼ sec.32, T.4 S., R.10 E., Wasco County, Hydrologic Unit 17070306, in Mount Hood National Forest, on left bank at Faith Spring, 1.4 mi (2.3 km) above Klip Creek, and at mile 33.3 (53.6 km).

DRAINAGE AREA.--40.7 mi² (105.4 km²).

PERIOD OF RECORD.--July 1969 to current year.

REVISED RECORDS.--WRD Oreg. 1972: 1970.

GAGE.--Water-stage recorder. Altitude of gage is 2,740 ft (835 m), from topographic map.

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--8 years, 168 ft³/s (4.758 m³/s), 56.06 in/yr (1,424 mm/yr), 121,700 acre-ft/yr (150 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,060 ft³/s (58.3 m³/s) Jan. 25, 1975, gage height, 5.62 ft (1.713 m); minimum, 20 ft³/s (0.57 m³/s) Jan. 6, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 272 ft³/s (7.70 m³/s) Apr. 25, gage height, 3.07 ft (0.936 m), no peak above base of 600 ft³/s (17.0 m³/s); minimum, 20 ft³/s (0.57 m³/s) Jan. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	73	51	44	45	60	84	197	119	73	54	51
2	66	69	52	42	44	55	79	218	111	70	51	45
3	62	70	51	41	44	52	79	225	111	67	50	46
4	55	72	51	39	43	52	89	208	132	65	50	54
5	51	70	51	37	43	54	104	177	125	63	50	55
6	54	70	51	36	43	55	130	158	125	60	51	52
7	54	69	49	35	43	59	179	148	127	59	50	49
8	56	66	54	34	42	69	221	141	121	63	46	47
9	55	65	50	34	43	66	182	139	111	65	46	46
10	58	63	47	34	46	60	153	156	106	63	47	49
11	58	62	49	34	47	58	146	146	102	66	50	49
12	51	59	47	35	52	58	146	137	99	67	54	47
13	52	58	47	35	59	56	156	134	99	62	59	47
14	54	58	47	36	50	54	141	141	95	63	60	46
15	52	66	49	40	49	54	137	134	92	65	60	46
16	51	67	50	47	49	52	141	127	89	65	62	46
17	49	63	49	54	51	52	127	134	87	67	60	46
18	46	66	49	62	49	54	123	130	87	69	60	51
19	46	56	46	62	47	55	117	127	85	62	62	56
20	47	55	45	58	49	54	117	130	85	62	65	60
21	49	55	45	54	50	54	117	141	85	66	67	75
22	49	54	44	52	49	58	121	132	85	63	72	72
23	49	54	45	50	46	63	148	130	82	62	72	73
24	52	54	43	50	47	60	197	121	79	62	69	97
25	81	55	47	47	47	59	244	119	81	62	66	95
26	62	51	62	46	46	60	231	123	79	60	79	89
27	55	47	63	49	55	73	209	121	79	56	47	84
28	54	50	52	46	72	79	200	117	76	59	49	87
29	54	51	50	45	---	72	206	111	78	56	58	90
30	52	51	47	45	---	69	215	109	72	55	70	102
31	65	---	45	45	---	72	---	111	---	55	65	---
TOTAL	1699	1819	1528	1368	1350	1848	4539	4434	2904	1952	1801	1852
MEAN	54.8	60.6	49.3	44.1	48.2	59.6	151	143	96.8	63.0	58.1	61.7
MAX	81	73	63	62	72	79	244	225	132	73	79	102
MIN	46	47	43	34	42	52	79	109	72	55	46	45
CFSM	1.35	1.49	1.21	1.08	1.18	1.46	3.71	3.51	2.38	1.55	1.43	1.52
IN.	1.55	1.66	1.40	1.25	1.23	1.69	4.15	4.05	2.65	1.78	1.65	1.69
AC-FT	3370	3610	3030	2710	2680	3670	9000	8790	5760	3870	3570	3670

CAL YR 1976 TOTAL 56143 MEAN 153 MAX 596 MIN 43 CFSM 3.76 IN 51.31 AC-FT 111400

WTR YR 1977 TOTAL 27094 MEAN 74.2 MAX 244 MIN 34 CFSM 1.82 IN 24.76 AC-FT 53740

14101500 WHITE RIVER BELOW TYGH VALLEY, OR

LOCATION.--Lat 45°14'30", long 121°05'38", in NE¼NE¼ sec./, T.4 S., R.14 E., Wasco County, Hydrologic Unit 17070306, on left bank 200 ft (61 m) downstream from former Pacific Power & Light Co. powerplant at White River Falls, 3.9 mi (6.3 km) east of town of Tygh Valley, and at mile 2.0 (3.2 km).

DRAINAGE AREA.--417 mi^2 (1,080 km^2).

PERIOD OF RECORD.--October 1917 to current year.

REVISED RECORDS.--WSP 1448: 1920, 1923, 1927-28, drainage area. WSP 1935: 1956.

GAGE.--Water-stage recorder. Datum of gage is 870.15 ft (265.222 m) above mean sea level (levels by Pacific Power & Light Co.). Prior to July 28, 1931, at site 750 ft (229 m) downstream at different datum. July 28, 1931, to Sept. 30, 1954, at site 700 ft (213 m) downstream at different datums.

REMARKS.--Records good. No regulation. Diversions above station for irrigation.

AVERAGE DISCHARGE.--60 years, 429 ft^3/s (12.15 m^3/s), 310,800 acre-ft/yr (383 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,300 ft^3/s (377 m^3/s) Jan. 6, 1923, gage height, about 13.3 ft (4.05 m), site and datum then in use, from rating curve extended above 5,000 ft^3/s (142 m^3/s); minimum, 7.5 ft^3/s (0.21 m^3/s) Aug. 31, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 369 ft^3/s (10.5 m^3/s) Apr. 26, gage height, 2.52 ft (0.768 m), no peak above base of 1,600 ft^3/s (45.3 m^3/s); minimum, 69 ft^3/s (1.95 m^3/s) Sept. 14-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	169	115	110	140	140	157	304	190	117	96	98
2	136	162	113	110	136	131	159	312	188	117	93	95
3	136	154	123	100	131	134	154	336	180	115	93	96
4	129	147	123	100	131	125	162	320	199	117	93	104
5	127	145	119	95	131	127	172	290	202	109	91	96
6	127	143	119	95	131	125	199	268	196	105	96	91
7	127	140	121	90	129	129	241	251	188	102	95	85
8	127	140	123	90	129	150	320	245	185	104	88	83
9	127	138	129	90	129	147	301	235	174	107	83	80
10	125	138	121	90	129	134	261	245	167	107	81	78
11	129	131	119	90	136	125	241	248	159	105	81	77
12	123	129	117	90	136	125	235	222	152	107	81	75
13	119	134	119	90	150	125	245	216	152	105	83	72
14	119	136	119	95	136	121	235	216	152	104	85	71
15	119	143	119	100	129	119	222	213	147	104	81	69
16	119	157	121	110	125	115	232	207	143	105	80	69
17	119	147	121	145	123	115	219	205	140	107	78	71
18	119	152	119	147	123	119	213	207	140	111	78	72
19	117	136	115	162	121	121	202	202	138	113	78	77
20	119	129	113	152	115	117	202	205	138	107	80	80
21	123	125	109	147	121	111	202	210	136	109	83	83
22	121	125	113	143	121	115	205	216	140	113	85	88
23	119	125	115	140	117	125	222	210	136	109	81	88
24	117	125	115	136	117	125	261	199	131	107	89	91
25	147	125	115	131	115	121	332	190	131	109	95	98
26	169	123	134	121	115	121	344	190	127	113	119	98
27	154	113	147	131	119	154	320	190	127	104	100	95
28	147	109	129	131	147	157	297	193	123	104	95	96
29	143	117	125	134	---	147	293	188	123	102	115	98
30	140	117	121	129	---	140	316	182	119	96	127	100
31	143	---	111	136	---	138	---	182	---	98	111	---
TOTAL	4020	4074	3722	3630	3582	3998	7164	7097	4623	3332	2814	2574
MEAN	130	136	120	117	128	129	239	229	154	107	90.8	85.8
MAX	169	169	147	162	150	157	344	336	202	117	127	104
MIN	117	109	109	90	115	111	154	182	119	96	78	69
AC-FT	7970	8080	7380	7200	7100	7930	14210	14080	9170	6610	5580	5110

CAL YR 1976 TOTAL 155429 MEAN 425 MAX 2560 MIN 109 AC-FT 308300
WTR YR 1977 TOTAL 50630 MEAN 139 MAX 344 MIN 69 AC-FT 100400

14103000 DECHUTES RIVER AT MOODY, NEAR BIGGS, OR
(National stream-quality accounting network station)

LOCATION.--Lat 45°37'20", long 120°54'05", in SW¼SE¼ sec.26, T.2 N., R.15 E., Sherman County, Hydrologic Unit 17070306, on right bank at Moody, 4.0 mi (6.4 km) southwest of Biggs, and at mile 1.4 (2.3 km).

DRAINAGE AREA.--10,500 mi² (27,200 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1897 to December 1899 (published as "near Moro"), July 1906 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 754: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 167.54 ft (51.066 m) above mean sea level. Oct. 19, 1897, to Dec. 31, 1899, nonrecording gage at site 10 mi (16 km) upstream at different datum. July 22, 1906, to July 18, 1930, nonrecording gage at site 300 ft (91 m) downstream at datum 0.50 ft (0.152 m) lower.

REMARKS.--Water-discharge records good. Some fluctuation caused by regulation at Lake Simtustus since 1957. Some winter and spring runoff stored in Ochoco Reservoir, capacity, 46,420 acre-ft (57.2 hm³), in Crescent Lake, Crane Prairie and Wickiup Reservoirs, combined capacity, 323,390 acre-ft (399 hm³), and since 1960, in Prineville Reservoir (see station 14080400), and since 1964 in Lake Billy Chinook (see station 14092100). Large diversions in upper river basin for irrigation.

AVERAGE DISCHARGE.--73 years, 5,823 ft³/s (164.9 m³/s), 4,219,000 acre-ft/yr (5.20 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,500 ft³/s (2,140 m³/s) Dec. 22, 1964, gage height, 11.80 ft (3.597 m), from rating curve extended above 47,000 ft³/s (1,330 m³/s); minimum, 2,400 ft³/s (68.0 m³/s) Dec. 5, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,840 ft³/s (222 m³/s) Jan. 27, gage height, 3.51 ft (1.070 m); minimum, 3,470 ft³/s (98.3 m³/s) Feb. 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4970	5090	4450	5540	4660	5000	5770	4420	4000	4060	3970	4390
2	4970	5640	5190	6220	4690	4930	5840	4420	3970	3970	4090	4210
3	4810	5940	5380	6420	5250	5740	5770	4450	4120	3880	4120	4030
4	4870	5880	5380	6490	5220	6250	5410	4450	4240	3940	4000	4000
5	4810	5880	5350	6490	4540	6280	4630	4420	4270	4000	4000	3940
6	4810	5940	5410	7100	4970	6180	4420	4420	4270	3880	4000	3940
7	4720	6250	5740	7200	5440	5640	4690	4390	4780	3970	4030	4120
8	4720	5980	5350	7240	5000	5350	4540	4390	4840	3970	4000	4030
9	4690	6080	5440	7240	4540	4570	4600	4330	4810	4000	4060	3970
10	4660	6180	5380	6520	4240	4450	4510	4210	4540	4000	4060	4000
11	4630	6110	5380	6150	4300	4420	4450	4240	4450	4030	4000	3910
12	4690	6080	5350	5810	4360	4480	4390	4150	4420	4090	4000	3880
13	4780	6080	5350	5510	4300	4480	4270	4090	4420	4060	3910	3820
14	4840	5810	5480	5310	4330	4420	4090	4030	4420	4120	3880	3820
15	4780	5030	5570	5280	4300	4870	4000	4060	4390	3970	3850	3910
16	4870	4900	5540	5250	4180	5190	4090	4090	4420	3940	3940	3940
17	4900	5510	5510	4450	4060	4970	4090	4090	4300	3970	4000	3970
18	4930	6050	5480	4450	4030	4090	4030	4030	4210	4030	3970	4000
19	5350	6180	5510	4300	4000	3970	4030	4060	4120	4120	3970	4030
20	5770	5710	5510	4000	3760	3970	4000	3970	4120	4210	4060	4030
21	5770	4750	5440	3940	3560	3940	3970	3940	4090	4150	4060	4090
22	5770	4450	5510	3910	3590	4570	4000	3940	4120	4150	4120	4240
23	5840	4450	5510	3940	3760	5880	4030	4030	4180	4090	4180	4300
24	5910	4510	5440	4540	4090	5880	4150	4030	4090	4000	4120	4360
25	5910	4660	5280	5250	4090	5810	4180	4030	4210	4060	4090	4330
26	5910	4720	5280	6320	4420	5280	4390	4000	4300	4030	4210	4300
27	5910	4720	5250	7690	4660	4810	4480	3970	4300	4060	4150	4330
28	5880	5380	5280	6490	4900	4720	4390	3970	4120	4030	4210	4300
29	5910	5060	5280	5510	---	5220	4420	3910	4030	4090	4270	4330
30	5280	4450	5250	5190	---	5740	4390	3940	4060	4090	4420	4390
31	5090	---	5250	4900	---	5710	---	3910	---	4090	4480	---
TOTAL	160750	163470	166520	174650	123240	156810	134020	128380	128610	125050	126220	122910
MEAN	5185	5449	5372	5634	4401	5058	4467	4141	4287	4034	4072	4097
MAX	5910	6250	5740	7690	5440	6280	5840	4450	4840	4210	4480	4390
MIN	4630	4450	4450	3910	3560	3940	3970	3910	3970	3880	3850	3820
AC-FT	318800	324200	330300	346400	244400	311000	265800	254600	255100	248000	250400	243800

CAL YR 1976 TOTAL 2278200 MEAN 6225 MAX 12300 MIN 4450 AC-FT 4519000
WTR YR 1977 TOTAL 1710630 MEAN 4687 MAX 7690 MIN 3560 AC-FT 3343000

14103000 DESCHUTES RIVER AT MOODY, NEAR BIGGS, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1911-12, 1953-58, 1962 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1975 to current year.
WATER TEMPERATURES: December 1952 to February 1954, November 1954 to September 1958, June 1962 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 208 micromhos/cm Nov. 24, 1975; minimum, 63 micromhos/cm Dec. 5, 1975.
WATER TEMPERATURES: Maximum, 22.0°C July 12, 13, 1964; minimum, 0.5°C Dec. 30, 1955.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 183 micromhos/cm Oct. 3; minimum, 72 micromhos/cm Jan. 9.
WATER TEMPERATURES: Maximum, 21.5°C Aug. 4, 13, 20; minimum recorded, 4.0°C Jan. 5, 30.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	DISSOLVED OXYGEN (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
OCT												
19...	1500	5740	12.0	7.8	13.0	141	210	170	31	9.5	6.0	12
DEC												
01...	1430	5080	6.0	8.2	14.2	120	B10	<1	29	7.7	5.2	11
29...	0930	5260	6.2	8.3	12.8	134	B3	145	30	8.1	5.4	11
JAN												
26...	1530	6320	4.6	8.3	13.4	137	<1	B5	30	8.2	5.5	12
MAR												
02...	1600	4870	6.9	8.7	13.0	133	B4	B16	29	7.7	5.7	12
23...	1445	5842	10.0	8.8	12.2	132	B5	B7	29	7.7	5.3	11
APR												
20...	1200	4000	10.1	8.2	11.2	130	<1	B18	29	7.7	5.2	10
MAY												
24...	1100	4150	14.1	8.1	13.8	121	B4	B12	4.2	7.4	5.0	10
JUN												
28...	1830	5080	19.9	8.2	11.6	118	B7	B4	25	7.0	5.4	10
JUL												
26...	1530	4090	20.5	8.8	11.3	147	B3	B16	26	7.7	5.1	11
SEP												
01...	1500	4420	17.0	--	15.4	128	B7	B500	29	7.5	5.1	10
20...	1400	4000	16.0	7.9	11.5	133	B5	440	29	11	5.3	11

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO
OCT												
19...	73	0	3.0	2.4	.1	.10	.22	.32	.07	48	0	.8
DEC												
01...	67	0	3.2	2.0	.1	.14	.39	.53	.09	41	0	.8
29...	68	0	4.0	2.2	.1	.19	.27	.46	.09	42	0	.7
JAN												
26...	81	0	5.1	2.6	.2	.18	1.1	1.3	.08	43	0	.8
MAR												
02...	79	0	3.9	2.5	.2	.17	.05	.22	.06	43	0	.8
23...	74	--	3.9	2.3	.1	.00	.28	.28	.08	41	0	.7
APR												
20...	69	0	5.1	2.1	.1	.00	.12	.12	.08	41	0	.7
MAY												
24...	71	0	4.3	2.3	.2	.01	.48	.49	.10	39	0	.7
JUN												
28...	68	0	2.7	2.5	.1	.01	.70	.71	.07	40	0	.7
JUL												
26...	71	0	1.9	2.0	.1	.00	.26	.26	.05	40	0	.8
SEP												
01...	70	--	.5	2.1	.1	.11	.44	.55	.12	40	0	.7
20...	72	0	3.5	2.4	.1	.10	--	--	.09	49	0	.7

B: RESULTS BASED ON NON-IDEAL COLONY COUNT

14103000 DESCHUTES RIVER AT MOODY, NEAR BIGGS, OR—Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TUR-BID-ITY (JTU)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT											
19...	91	102	1410	.12	2	29	449	70	0	60	1.0
DEC											
01...	87	93	1190	.12	3	--	--	--	9	55	--
29...	108	96	1530	.15	2	6	85	50	3	56	--
JAN											
26...	96	105	1640	.13	2	14	239	34	3	66	.6
MAR											
02...	100	102	1320	.14	3	19	250	38	0	65	--
23...	100	98	1580	.14	3	11	174	40	6	61	--
APR											
20...	92	95	994	.13	2	10	108	56	12	57	.8
MAY											
24...	83	70	930	.11	1	12	134	53	3	58	--
JUN											
28...	81	88	1110	.11	3	8	110	48	2	56	--
JUL											
26...	73	91	806	.10	2	16	177	58	--	58	1.8
SEP											
01...	73	91	871	.10	25	66	788	94	66	57	--
20...	83	100	896	.11	6	22	238	84	9	59	--

DATE	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)
OCT											
19...	290	0	10	10	1	1	0	0	<10	0	0
JAN											
26...	190	30	0	0	2	1	<10	0	0	0	<50
APR											
20...	130	60	10	0	1	0	<10	0	0	0	<50
JUL											
26...	100	20	20	0	2	0	<10	1	0	0	<50

DATE	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)
OCT											
19...	0	11	5	14	2	30	0	--	0	.0	.0
JAN											
26...	0	<10	4	<100	0	30	0	0	0	.2	.0
APR											
20...	0	<10	4	<100	3	20	10	0	0	.0	.0
JUL											
26...	0	10	4	<100	8	10	4	0	0	.1	.1

14103000 DESCHUTES RIVER AT MOODY, NEAR BIGGS, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 19,76	DEC 1,76	DEC 29,76	JAN 26,77
TIME	1500	1430	0930	1530
TOTAL CELLS/ML	2800	200	280	4900
DIVERSITY: DIVISION	0.6	1.0	0.0	0.1
.CLASS	0.6	1.0	0.0	0.1
..ORDER	0.8	1.4	1.0	0.6
...FAMILY	2.6	2.2	1.9	2.8
....GENUS	2.6	2.3	2.3	3.1

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	30	1	--	-	--	-	--	-
..ZYGNEMATALES								
...ZYGNEMATACEAE								
....MOUGEOTIA	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	--	-	3	1	97	2
....MELOSIRA	--	-	*	0	16	6	--	-
....STEPHANODISCUS	89	3	25	12	84#	30	390	8
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	5	2	3	1	--	-
....COCCONEIS	--	-	*	0	*	0	240	5
....RHOICOSPHENIA	240	9	5	2	*	0	97	2
...CYMBELLACEAE								
....AMPHORA	--	-	--	-	--	-	--	-
....CYMBELLA	--	-	2	1	*	0	--	-
....EPITHEMIA	120	4	2	1	--	-	240	5
...DIATOMACEAE								
....DIATOMA	1200#	41	2	1	19	7	630	13
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	--	-	--	-	--	-
....FRAGILARIA	210	7	2	1	120#	42	1600#	33
....SYNEDRA	--	-	--	-	3	1	97	2
...GOMPHONEMATACEAE								
....GOMPHONEIS	--	-	--	-	--	-	--	-
....GOMPHONEMA	30	1	15	7	6	2	540	11
...NAVICULACEAE								
....NAVICULA	420	15	12	6	6	2	190	4
....NEIDIUM	--	-	--	-	--	-	--	-
....STAURONEIS	--	-	--	-	--	-	49	1
...NITZSCHIACEAE								
....HANTZSCHIA	--	-	--	-	*	0	--	-
....NITZSCHIA	--	-	20	10	19	7	580	12
...TABELLARIACEAE								
....TABELLARIA	150	5	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROCCOCCALES								
...CHROCCOCCAEAE								
....ANACYSTIS	--	-	--	-	--	-	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	360	13	--	-	--	-	--	-
...OSCILLATORIACEAE								
....LYNGBYA	--	-	--	-	--	-	--	-
....OSCILLATORIA	--	-	110#	54	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	--	-	--	-	97	2

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

14103000 DESCHUTES RIVER AT MOODY, NEAR BIGGS, OR—Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	MAY 24,77	JUN 28,77	JUL 26,77	SEP 20,77
TIME	1100	1830	1530	1400
TOTAL CELLS/ML	14000	2600	3700	320
DIVERSITY: DIVISION	1.0	1.0	0.1	0.4
.CLASS	1.0	1.0	0.1	0.4
..ORDER	1.7	1.4	1.1	1.2
...FAMILY	2.4	1.8	2.3	2.2
....GENUS	2.7	2.4	3.2	2.5

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-
..ZYGNEMATALES								
...ZYGNEMATACEAE								
....MOUGEOTIA	--	-	--	-	--	-	25	8
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	4400#	32	750#	29	230	6	--	-
....MELOSIRA	--	-	56	2	940#	25	62#	19
....STEPHANODISCUS	150	1	390#	15	690#	18	37	12
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	75	1	--	-	57	2	--	-
....COCCONEIS	150	1	56	2	110	3	--	-
....RHOICOSPHENIA	300	2	28	1	200	5	--	-
...CYMBELLACEAE								
....AMPHORA	--	-	--	-	29	1	--	-
....CYMBELLA	150	1	14	1	140	4	--	-
....EPITHEMIA	--	-	28	1	110	3	--	-
...DIATOMACEAE								
....DIATOMA	900	7	56	2	660#	18	6	2
...FRAGILARIACEAE								
....ASTERIONELLA	75	1	--	-	--	-	--	-
....FRAGILARIA	--	-	140	5	--	-	120#	38
....SYNEDRA	--	-	--	-	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEIS	150	1	--	-	--	-	--	-
....GOMPHONEMA	230	2	14	1	200	5	6	2
...NAVICULACEAE								
....NAVICULA	380	3	14	1	140	4	43	13
....NEIDIUM	--	-	--	-	57	2	--	-
....STAURONEIS	--	-	--	-	--	-	--	-
...NITZSCHIACEAE								
....HANTZSCHIA	--	-	--	-	--	-	--	-
....NITZSCHIA	1700	12	28	1	110	3	18	6
...TABELLARIACEAE								
....TABELLARIA	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROCCOCCALES								
...CHROCCOCCAEAE								
....ANACYSTIS	230	2	--	-	--	-	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....LYNGBYA	4100#	30	--	-	--	-	--	-
....OSCILLATORIA	750	5	1000#	39	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	--	-	57	2	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

14103000 DESCHUTES RIVER AT MOODY, NEAR BIGGS, OR—Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	LENGTH OF EXPO-SURE (DAYS)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	CHLOR-A PERI-PHYTON CHROMO-SPECT-METRIC (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-SPECT-METRIC (MG/M2)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)
OCT						
19...	76	143	7.51	1.04	--	--
DEC						
29...	28	2545	.393	.309	--	--
MAY						
24...	34	10450	--	--	.067	.009
SEP						
01...	37	34930	--	--	.229	2.16

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	178	140	124	126	134	133	126	119	116	131	141	133
2	182	139	124	116	130	133	129	119	114	130	146	128
3	183	136	124	118	130	134	126	120	111	130	145	125
4	180	133	125	126	136	137	123	122	112	132	143	125
5	177	133	127	118	140	136	121	123	110	135	147	128
6	177	133	129	91	143	133	120	124	108	131	143	132
7	178	132	138	76	145	133	122	126	108	137	139	132
8	161	133	142	74	146	132	120	124	107	136	141	135
9	145	128	143	72	155	131	116	122	108	138	140	141
10	140	122	145	74	168	130	115	123	107	136	145	146
11	140	122	144	79	172	129	115	123	109	136	146	146
12	141	119	143	82	167	129	115	126	107	139	143	138
13	142	115	146	91	161	132	116	128	108	138	135	135
14	144	113	146	96	149	132	119	131	110	134	135	130
15	145	114	151	108	138	132	118	128	109	133	135	131
16	144	121	149	117	130	133	121	129	107	139	139	126
17	144	126	148	130	125	132	118	127	109	142	140	127
18	145	125	156	151	127	130	121	125	107	138	138	130
19	145	122	152	151	---	133	121	126	107	138	137	130
20	146	118	141	153	---	132	124	125	109	141	140	137
21	148	121	136	172	---	132	123	123	109	142	143	---
22	146	126	129	167	---	131	122	121	111	143	138	139
23	144	127	129	154	---	131	123	126	112	140	138	135
24	143	133	124	160	127	129	119	128	110	143	140	136
25	143	142	125	159	127	129	120	120	113	150	143	133
26	142	140	127	132	130	126	121	123	112	150	137	130
27	141	135	143	120	131	126	120	120	113	145	137	127
28	142	132	131	119	132	126	121	115	123	149	137	126
29	143	129	130	119	---	124	120	112	119	148	137	125
30	143	124	132	122	---	124	119	113	126	148	134	123
31	141	---	127	130	---	124	---	108	---	145	136	---

14103000 DESCHUTES RIVER AT MOODY, NEAR BIGGS, OR--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	15.0	12.5	11.5	6.0	5.5	5.5	5.5	5.0	4.5	8.5	7.0
2	16.0	15.0	12.5	12.0	6.0	5.5	5.5	5.0	5.0	5.0	7.0	6.0
3	14.5	13.5	12.5	11.5	6.5	6.0	5.5	5.5	5.0	4.5	7.5	6.0
4	14.5	12.5	12.0	11.0	7.0	6.5	6.0	5.0	5.5	5.0	8.0	6.0
5	14.5	12.5	12.0	12.0	6.5	6.5	5.0	4.0	5.5	5.0	8.5	6.5
6	15.0	13.0	12.0	11.5	7.5	6.5	---	---	5.5	5.0	8.5	7.5
7	15.5	13.5	12.0	11.0	8.0	7.0	---	---	5.5	5.5	8.5	7.5
8	15.5	13.5	12.5	11.5	8.0	7.5	---	---	5.5	5.0	8.5	7.5
9	15.0	13.5	12.0	11.0	7.5	7.0	---	---	6.5	5.5	8.5	7.0
10	15.0	13.5	12.0	11.0	7.0	6.5	---	---	8.0	6.0	8.5	6.5
11	15.0	13.0	11.5	11.0	7.0	6.5	---	---	8.0	7.0	8.5	6.5
12	15.0	13.0	10.5	10.0	6.5	6.0	---	---	8.5	7.0	8.5	7.5
13	14.5	12.5	10.0	9.5	7.0	6.0	---	---	9.0	8.0	8.5	7.0
14	14.0	12.5	10.0	9.0	6.5	6.5	---	---	8.0	7.0	7.0	6.0
15	13.5	12.0	10.5	9.5	7.0	6.5	---	---	7.5	6.5	8.5	6.0
16	13.0	11.5	11.5	10.5	7.0	6.5	---	---	8.5	6.5	8.5	7.0
17	12.5	11.5	11.5	11.0	6.5	6.5	---	---	9.0	7.5	8.5	6.5
18	12.0	10.5	11.0	10.5	7.0	6.5	---	---	9.0	7.0	9.5	7.0
19	11.5	10.0	10.5	9.5	6.5	6.0	---	---	8.5	7.0	9.0	8.0
20	11.5	10.5	9.5	9.0	6.0	5.5	---	---	8.0	7.0	9.0	7.0
21	11.5	10.5	9.0	8.5	5.5	5.5	---	---	7.5	6.5	9.0	7.0
22	12.0	10.5	9.5	8.5	5.5	5.5	---	---	8.5	6.5	10.5	8.0
23	12.0	11.0	8.5	8.0	6.0	5.5	---	---	7.0	6.0	10.0	8.5
24	11.5	11.0	9.0	8.5	6.0	5.5	---	---	7.0	6.0	9.5	7.5
25	11.5	11.0	9.0	8.5	6.5	6.0	---	---	7.0	6.0	10.0	7.5
26	12.0	11.0	8.5	7.0	7.5	6.5	---	---	7.0	6.0	10.5	8.0
27	12.0	10.5	7.0	6.0	7.5	7.0	5.5	4.5	8.5	6.5	10.0	8.0
28	11.5	10.5	6.5	5.5	7.0	6.5	5.0	4.5	8.0	7.5	9.5	7.5
29	11.5	10.5	7.0	6.0	6.5	6.0	5.0	4.5	---	---	9.5	7.0
30	11.5	10.5	6.0	5.5	6.0	6.0	4.5	4.0	---	---	10.5	7.5
31	12.0	11.0	---	---	6.0	5.5	5.0	4.5	---	---	9.0	8.0
MONTH	16.5	10.0	12.5	5.5	8.0	5.5	6.0	4.0	9.0	4.5	10.5	6.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	7.5	13.0	12.0	16.0	14.0	20.0	17.5	21.0	17.5	17.0	14.5
2	10.5	8.0	13.5	12.0	16.5	13.5	19.0	16.0	21.0	18.0	16.0	15.0
3	12.0	8.5	14.0	12.0	15.0	14.0	18.0	15.5	21.0	18.0	17.0	15.0
4	12.5	9.5	13.0	11.5	15.5	13.5	17.5	14.5	21.5	18.0	19.0	16.5
5	13.5	10.0	13.5	11.0	18.5	13.5	17.0	14.0	21.0	18.0	19.0	16.0
6	13.5	10.5	12.5	10.5	20.0	16.0	18.0	13.5	20.5	18.0	18.5	16.0
7	14.0	11.0	11.5	10.5	19.5	17.0	19.0	15.0	20.5	17.5	17.5	15.5
8	12.5	11.0	13.5	10.0	18.0	15.0	19.0	16.0	21.0	18.0	17.5	14.5
9	11.5	9.5	15.0	12.0	18.5	14.5	18.5	16.0	21.0	17.5	17.0	14.5
10	10.5	8.5	14.0	11.5	18.0	14.5	19.0	15.0	20.5	17.5	17.0	14.5
11	12.5	9.5	13.5	10.5	17.0	15.0	20.0	16.0	21.0	17.5	17.5	14.5
12	13.0	10.0	15.0	11.0	18.0	14.5	18.5	16.0	21.0	17.5	18.0	15.0
13	12.5	10.5	15.5	12.5	19.0	15.0	19.5	15.5	21.5	18.0	18.0	15.0
14	12.5	9.0	15.5	12.5	19.0	15.5	20.0	16.0	20.5	18.5	17.5	15.5
15	12.5	10.0	15.0	12.5	18.5	15.5	20.5	17.0	21.0	18.0	16.0	14.5
16	12.5	10.5	14.5	12.0	19.0	15.0	20.0	17.0	21.0	18.0	16.5	14.0
17	12.5	9.5	15.0	12.0	19.0	15.5	19.0	17.0	21.0	18.5	15.5	14.0
18	12.0	9.0	16.5	12.5	20.0	16.5	18.5	15.5	20.5	18.0	15.5	14.5
19	12.0	9.0	17.0	13.5	19.5	16.5	18.5	15.0	21.0	18.5	16.5	14.5
20	12.0	9.5	18.0	14.5	19.0	16.0	19.5	15.5	21.5	18.5	16.0	14.5
21	12.0	10.5	17.0	15.0	19.5	15.5	20.5	16.5	20.5	18.5	16.0	14.0
22	14.0	10.5	17.5	14.5	20.0	17.0	20.5	17.0	20.0	17.5	15.5	13.0
23	14.5	11.5	16.0	14.0	19.5	16.5	20.5	17.5	18.5	17.0	14.5	13.5
24	15.5	12.5	15.5	13.5	20.5	16.5	19.5	18.0	18.5	16.5	15.0	13.0
25	15.5	13.0	15.5	12.5	20.5	17.0	19.0	17.0	17.0	15.5	15.5	13.5
26	15.0	12.0	15.5	13.0	20.0	16.5	20.5	17.0	17.0	14.5	16.0	13.5
27	15.0	11.5	14.5	12.5	20.0	16.5	21.0	17.5	16.5	14.0	15.0	14.0
28	15.0	12.5	14.5	12.0	20.0	16.5	19.5	17.0	17.0	15.0	14.0	13.5
29	15.0	12.5	15.5	11.5	20.0	16.0	19.5	16.5	16.5	15.0	14.0	13.0
30	14.0	12.5	15.0	13.5	20.5	16.5	20.0	16.5	17.5	15.0	14.0	12.5
31	---	---	16.0	14.0	---	---	21.0	17.0	17.5	15.0	---	---
MONTH	15.5	7.5	18.0	10.0	20.5	13.5	21.0	13.5	21.5	14.0	19.0	12.5

14105700 COLUMBIA RIVER AT THE DALLES, OR

LOCATION.--Lat 45°36'27", long 121°10'20", in SW¼SW¼ sec.34, T.2 N., R.13 E., Wasco County, Hydrologic Unit 17070105, Corps of Engineers land, on left bank 0.3 mi (0.5 km) downstream from Mill Creek, 2.6 mi (4.2 km) downstream from The Dalles Dam, and at mile 188.9 (303.9 km).

DRAINAGE AREA.--237,000 mi^2 (614,000 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1857 to September 1877 (annual maximum only, at Lower Cascades Landing, published in WSP 1318), June 1878 to current year. Published as "near The Dalles" 1936-56.

REVISED RECORDS.--WSP 534: 1920(m). WSP 1094: 1894. WSP 1248: 1866, 1888, 1899, 1909. WSP 1518: 1876(M).

GAGE.--Acoustic velocity meter (AVM) with water-stage and velocity-index recorder. Datum of gage is at mean sea level. See WSP 1738 for history of changes prior to Mar. 16, 1957. Mar. 16, 1957, to Sept. 30, 1968, water-stage recorder at site 0.4 mi (0.6 km) upstream at same datum.

REMARKS.--Water-discharge records fair. Considerable regulation by many large reservoirs. Diurnal fluctuations caused by powerplant and gates at The Dalles Dam. Many diversions for irrigation above station.

AVERAGE DISCHARGE.--99 years, 194,100 ft^3/s (5,497 m^3/s), 140,600,000 acre-ft/yr (173 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (1858-77), 1,240,000 ft^3/s (35,100 m^3/s) June 6, 1894, gage height, 106.5 ft (32.46 m); minimum (1878-1977), 12,100 ft^3/s (343 m^3/s) Apr. 16, 1968 (recorded by AVM due to closure of John Day dam).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 213,000 ft^3/s (6,030 m^3/s) Jan. 25; maximum gage height, 79.44 ft (24.213 m) June 3; minimum daily discharge, 53,900 ft^3/s (1,530 m^3/s) July 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	135000	135000	170000	112000	156000	126000	126000	103000	168000	76400	105000	95300
2	121000	135000	156000	103000	171000	124000	109000	142000	164000	82900	118000	81900
3	110000	129000	136000	175000	171000	143000	76200	154000	168000	70400	103000	94500
4	176000	139000	84900	147000	142000	124000	100000	151000	105000	72500	126000	81000
5	188000	145000	93900	179000	121000	120000	98000	148000	84500	76900	106000	71300
6	169000	111000	124000	146000	78200	117000	98000	150000	129000	86500	82500	112000
7	143000	116000	123000	178000	142000	134000	91100	128000	141000	82900	78500	124000
8	150000	127000	134000	130000	141000	120000	81500	120000	161000	97000	83900	100000
9	101000	130000	121000	96200	131000	116000	79600	136000	153000	80400	94700	107000
10	97800	145000	121000	131000	121000	127000	71700	137000	148000	53900	88800	75600
11	146000	135000	119000	141000	116000	125000	115000	146000	108000	100000	102000	65600
12	151000	127000	120000	158000	108000	122000	106000	142000	90900	104000	99000	95900
13	164000	124000	149000	136000	77500	125000	115000	134000	131000	96600	79600	105000
14	159000	131000	139000	136000	125000	135000	127000	122000	145000	99400	58300	116000
15	190000	129000	136000	112000	121000	121000	125000	127000	152000	116000	108000	114000
16	130000	132000	139000	107000	125000	175000	97000	143000	156000	65500	117000	113000
17	102000	136000	156000	139000	110000	121000	65600	145000	144000	82300	99000	92600
18	174000	128000	117000	123000	108000	135000	105000	129000	112000	118000	97200	78400
19	175000	122000	105000	127000	111000	128000	102000	105000	83600	110000	107000	109000
20	140000	126000	146000	168000	99000	97600	119000	112000	96400	110000	87300	91900
21	152000	121000	144000	146000	120000	118000	118000	138000	106000	85800	65200	99100
22	160000	134000	158000	132000	117000	114000	110000	131000	108000	107000	106000	95500
23	89100	126000	160000	132000	132000	123000	94500	131000	110000	66700	111000	110000
24	89000	141000	119000	175000	121000	123000	74100	132000	124000	73800	111000	92100
25	125000	130000	117000	213000	146000	117000	117000	170000	107000	92200	89500	91600
26	136000	129000	118000	171000	121000	90000	129000	174000	75500	97100	79900	109000
27	148000	143000	122000	151000	108000	89000	125000	184000	117000	85600	75500	112000
28	156000	118000	136000	161000	134000	109000	127000	130000	96200	92700	55600	112000
29	164000	171000	139000	153000	---	140000	111000	116000	113000	106000	98700	114000
30	131000	183000	147000	136000	---	121000	105000	95900	113000	84700	83500	110000
31	112000	---	162000	198000	---	131000	---	146000	---	73500	88500	---
TOTAL	4383900	3998000	4111800	4512200	3473700	3810600	3118300	4219900	3710100	2746700	2905200	2970300
MEAN	141400	133300	132600	145600	124100	122900	103900	136100	123700	88600	93720	99010
MAX	190000	183000	170000	213000	171000	175000	129000	184000	168000	118000	126000	124000
MIN	89000	111000	84900	96200	77500	89000	65600	95900	75500	53900	55600	65600
AC-FT	8695000	7930000	8156000	8950000	6890000	7558000	6185000	8370000	7359000	5448000	5762000	5892000

CAL YR 1976 TOTAL 78819700 MEAN 215400 MAX 418000 MIN 84900 AC-FT 156300000
WTR YR 1977 TOTAL 43960700 MEAN 120400 MAX 213000 MIN 53900 AC-FT 87200000

14105700 COLUMBIA RIVER NEAR THE DALLES, OR—Continued

WATER-QUALITY RECORDS

LOCATION.—Samples collected at The Dalles Dam, 3.2 mi (5.1 km) upstream from discharge station.

PERIOD OF RECORD.—Water years 1951 to current year.

PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: December 1950 to current year.
WATER TEMPERATURES: December 1950 to September 1969, October 1973 to September 1976.

REMARKS.—No appreciable inflow between sampling point and gaging station except during periods of heavy local runoff.

EXTREMES FOR PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: Maximum daily, 324 micromhos/cm Dec. 7, 1955; minimum daily, 95 micromhos/cm June 8, 1972.

EXTREMES FOR CURRENT YEAR.—
SPECIFIC CONDUCTANCE: Maximum daily, 232 micromhos May 13; minimum daily recorded, 136 micromhos July 7, 8.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	DIS-CHARGE (CFS)	TEMPER-ATURE (DEG C)	PH (UNITS)	DIS-SOLVED OXYGEN (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	FECAL COLI-FORM .7UM-MF (COL./100 ML)	FECAL STREP-TOCOCCI KF AGAR (COL. PER 100 ML)	CHLORO-PHYLL A (UG/L)	CHLORO-PHYLL B (UG/L)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)
OCT												
18...	1400	177000	16.0	8.3	10.0	170	B4	<1	6.16	.959	--	--
NOV												
30...	1400	182700	9.0	8.1	11.6	186	B6	<1	11.1	10.2	--	--
DEC												
28...	1500	141500	5.8	8.3	11.5	191	B1	--	--	--	--	--
JAN												
25...	1400	211300	2.0	8.0	14.0	196	<1	B7	--	--	.126	.000
MAR												
02...	1300	129600	5.0	8.5	13.0	196	B1	<1	5.41	.620	--	--
22...	1300	113600	5.8	8.6	13.4	188	<1	<1	--	--	.300	.066
APR												
27...	1200	122800	11.3	8.4	11.3	202	B1	<1	1.95	.576	--	--
MAY												
23...	1330	133100	13.3	8.6	--	179	B2	<1	--	--	--	--
JUN												
30...	1200	112900	19.0	8.2	8.7	146	B1	<1	6.10	.486	--	--
JUL												
26...	1300	97100	20.5	8.0	11.3	144	B1	<1	4.15	.000	--	--
AUG												
31...	0800	88500	20.7	--	8.3	156	K12	B15	--	--	--	--

DATE	CHEM-ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)
OCT											
18...	19	7.0	.14	.00	.47	.47	.61	.04	2.5	91	43500
NOV											
30...	3	7.2	.23	.00	.37	.37	.60	.04	1.5	105	51800
DEC											
28...	14	8.7	.26	.02	.22	.24	.50	.03	1.7	116	44300
JAN											
25...	19	8.4	.30	.01	.06	.07	.37	.02	1.4	122	69600
MAR											
02...	15	7.6	.19	.00	.92	.92	1.1	.01	1.5	109	38100
22...	7	7.1	.12	.02	.20	.22	.34	.00	1.5	122	37400
APR											
27...	13	6.3	.21	.06	.30	.36	.57	.03	1.7	116	38500
MAY											
23...	9	3.8	.01	.04	.52	.56	.57	.05	1.9	101	36300
JUN											
30...	8	4.7	.06	.05	.12	.17	.23	.04	1.8	77	23500
JUL											
26...	7	4.4	.03	.01	.41	.42	.45	.03	1.9	81	21200
AUG											
31...	28	5.9	.09	.04	.24	.28	.37	.02	1.0	77	18400

14105700 COLUMBIA RIVER NEAR THE DALLES, OR—Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
OCT 18...	.12	2	<10	0	20	360	100	30	0	.2	11
NOV 30...	.14	2	<10	0	<10	250	<100	20	0	.0	10
DEC 28...	.16	1	<10	0	<10	150	<100	40	0	.0	5
JAN 25...	.17	2	<10	0	<10	130	<100	70	0	.1	4
MAR 02...	.15	3	<10	0	<10	140	<100	40	0	.0	0
22...	.17	1	<10	0	<10	160	<100	30	0	.0	0
APR 27...	.16	2	<10	0	10	200	100	20	0	.0	12
MAY 23...	.14	--	10	320	<10	1100	<100	70	0	.1	8
JUN 30...	.10	0	<10	0	10	150	<100	30	0	.1	4
JUL 26...	.11	2	<10	10	40	460	<100	40	0	.0	3
AUG 31...	.10	1	<10	10	30	180	<100	30	0	.0	5

DATE	TOTAL CAL-CIUM (CA) (MG/L)	TOTAL MAG-NE-SIUM (MG) (MG/L)	TOTAL PO-TAS-SIUM (K) (MG/L)	TOTAL SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	OIL AND GREASE (MG/L)
OCT 18...	17	4.5	1.2	6.4	69	0	13	2.9	0
JAN 25...	22	6.4	1.4	7.4	--	0	20	4.2	0
APR 27...	24	6.8	1.5	8.5	96	0	16	5.0	0
JUL 26...	18	4.6	1.1	4.4	68	0	11	2.7	0

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	184	171	200	---	185	216	165	140	149	153
2		---	185	172	193	---	189	212	165	140	147	153
3		---	189	174	186	---	191	213	---	140	148	151
4		---	189	183	184	---	190	215	165	138	148	152
5		160	185	183	184	---	189	211	160	139	149	156
6		155	189	183	186	---	194	210	161	137	148	155
7		154	189	186	186	---	194	210	161	136	148	154
8		154	191	191	---	---	191	213	162	136	150	157
9		161	196	192	---	186	194	220	160	137	149	156
10		159	195	188	---	188	190	228	158	138	148	157
11		160	193	190	---	---	186	228	159	137	151	158
12		162	191	180	---	188	186	---	157	138	151	158
13		162	188	188	---	190	185	232	157	137	152	158
14		162	186	177	---	189	186	220	158	138	152	160
15		166	187	189	---	189	188	219	155	138	151	159
16		170	188	180	---	190	192	209	154	138	153	159
17		170	190	181	---	192	192	202	153	138	152	158
18		170	192	186	---	194	192	203	154	138	154	158
19		175	188	188	---	189	191	194	151	140	155	158
20		---	189	191	---	194	193	189	150	140	154	158
21		---	---	195	---	191	193	186	152	141	154	159
22		187	199	190	---	192	195	183	---	142	153	---
23		186	202	190	---	189	200	180	150	144	153	---
24		183	203	190	---	187	199	178	151	143	153	---
25		178	197	193	---	184	202	176	149	143	154	---
26		176	196	---	---	188	216	173	148	144	153	---
27		176	193	198	---	192	211	171	146	144	154	---
28		181	191	197	---	190	213	170	145	145	156	---
29		180	189	201	---	194	209	168	143	146	154	---
30		184	186	198	---	192	213	166	142	146	153	---
31		---	171	202	---	192	---	166	---	147	152	---

14113200 MOSIER CREEK NEAR MOSIER, OR

LOCATION.--Lat 45°38'55", long 121°22'35", in NW¼NW¼ sec.19, T.2 N., R.12 E., Wasco County, Hydrologic Unit 17070105, on left bank 0.1 mi (0.2 km) downstream from West Fork Mosier Creek, 2.5 mi (4.0 km) southeast of Mosier, and at mile 3.0 (4.8 km).

DRAINAGE AREA.--41.5 mi^2 (107.5 km^2).

PERIOD OF RECORD.--April 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 425 ft (130 m), from topographic map.

REMARKS.--Records fair. No regulation. Several small pumping diversions for irrigation above station.

AVERAGE DISCHARGE.--14 years, 28.4 ft^3/s (0.804 m^3/s), 20,580 acre-ft/yr (25.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,790 ft^3/s (136 m^3/s) Dec. 23, 1964, gage height, 8.9 ft (2.71 m), from flood profile, from rating curve extended above 1,000 ft^3/s (28.3 m^3/s), on basis of slope-area measurement of peak flow; minimum, 0.60 ft^3/s (0.017 m^3/s) July 31, 1968, July 30, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9.4 ft^3/s (0.27 m^3/s) Mar. 8; maximum gage height, 1.53 ft (0.466 m), backwater from ice; minimum discharge, 0.61 ft^3/s (0.017 m^3/s) Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	4.5	4.1	3.3	3.3	6.4	5.6	3.2	2.7	1.1	.89	1.7
2	2.3	3.6	4.0	3.3	3.3	5.4	5.6	3.2	2.6	1.2	.85	1.6
3	2.3	3.4	4.1	3.5	3.3	5.1	5.6	3.7	2.6	1.1	.81	1.7
4	2.4	3.2	3.5	3.5	3.3	4.9	5.6	4.9	2.7	1.2	.81	1.7
5	2.5	3.2	3.5	3.3	3.3	4.4	5.8	4.1	2.7	1.3	.81	1.7
6	2.4	3.3	3.5	3.0	3.3	4.4	5.8	4.3	2.4	1.3	.85	1.6
7	2.3	3.3	3.5	3.0	3.3	4.9	5.8	3.6	2.2	1.2	.93	1.4
8	2.2	3.2	3.7	3.0	3.3	8.6	5.8	3.7	2.0	1.1	.85	1.3
9	2.2	3.2	4.7	3.0	3.3	8.3	5.8	3.6	1.9	1.1	.77	1.3
10	2.2	3.3	4.1	3.0	3.3	7.6	5.6	3.6	2.0	1.2	.77	1.3
11	2.2	3.5	3.6	3.0	4.0	6.4	5.4	3.7	1.8	1.1	.77	1.3
12	2.2	3.6	3.6	3.0	4.1	5.8	5.1	3.5	1.8	1.1	.77	1.4
13	2.1	3.7	3.5	3.1	4.1	5.4	4.9	3.5	1.8	1.1	.77	1.4
14	2.1	3.6	3.5	3.2	4.0	5.1	4.9	3.2	1.7	.93	.77	1.4
15	2.1	4.0	3.3	3.5	3.7	4.7	4.7	3.2	1.7	1.1	.77	1.4
16	2.1	4.6	3.5	4.0	3.6	4.6	4.6	3.0	1.6	1.0	.77	1.5
17	2.1	4.4	3.5	4.3	3.6	4.3	4.6	2.9	1.5	.98	.72	1.5
18	2.1	4.4	3.5	4.9	3.6	4.3	4.6	2.9	1.4	1.2	.72	1.7
19	2.1	4.1	3.5	5.8	3.6	4.3	4.4	2.7	1.3	1.1	.77	1.8
20	2.1	3.8	3.6	5.1	3.6	4.3	4.4	2.6	1.3	1.1	.85	1.8
21	2.1	3.8	3.1	4.4	3.7	4.4	4.1	2.6	1.5	1.0	.89	1.8
22	2.1	3.8	3.2	4.1	4.3	4.4	4.1	2.6	1.5	.98	.93	2.0
23	2.1	3.8	3.2	4.0	4.3	4.4	4.1	2.6	1.3	.93	.98	2.0
24	2.5	3.8	3.3	3.8	4.0	4.4	4.1	2.7	1.2	.89	1.2	2.0
25	3.0	3.6	3.3	3.6	4.0	4.4	3.7	2.5	1.2	.89	1.8	2.1
26	4.5	3.6	4.0	4.1	4.1	4.4	3.7	2.6	1.1	1.0	2.7	2.1
27	3.8	3.5	5.1	3.5	4.3	6.9	3.6	3.5	1.1	1.0	2.0	2.1
28	3.5	3.5	4.3	4.1	7.3	7.1	3.5	3.1	1.1	.98	1.9	2.1
29	3.3	3.6	3.8	3.5	---	6.4	3.3	2.8	1.1	1.0	1.9	2.1
30	3.3	5.1	3.8	3.3	---	5.6	3.3	2.7	1.1	.98	2.0	2.1
31	3.5	---	3.5	3.3	---	5.6	---	2.6	---	.93	2.0	---
TOTAL	78.0	112.0	114.4	113.5	106.9	167.2	142.1	99.4	51.9	33.09	34.32	50.9
MEAN	2.52	3.73	3.69	3.66	3.82	5.39	4.74	3.21	1.73	1.07	1.11	1.70
MAX	4.5	5.1	5.1	5.8	7.3	8.6	5.8	4.9	2.7	1.3	2.7	2.1
MIN	2.1	3.2	3.1	3.0	3.3	4.3	3.3	2.5	1.1	.89	.72	1.3
AC-FT	155	222	227	225	212	332	282	197	103	66	68	101

CAL YR 1976 TOTAL 11655.00 MEAN 31.8 MAX 313 MIN 1.9 AC-FT 23120
WTR YR 1977 TOTAL 1103.71 MEAN 3.02 MAX 8.6 MIN .72 AC-FT 2190

14118500 WEST FORK HOOD RIVER NEAR DEE, OR

LOCATION.--Lat 45°35'55", long 121°38'05", in SE¼ sec.1, T.1 N., R.9 E., Hood River County, Hydrologic Unit 17070105, on left bank 0.3 mi (0.5 km) upstream from Dead Point Creek, 0.8 mi (1.3 km) northwest of Dee, and at mile 0.4 (0.6 km).

DRAINAGE AREA.--95.6 mi^2 (247.6 km^2).

PERIOD OF RECORD.--September 1913 to February 1916 (incomplete), June 1932 to current year.

GAGE.--Water-stage recorder. Datum of gage is 802.1 ft (244.48 m) above mean sea level. Sept. 1, 1913, to Feb. 12, 1916, nonrecording gage at site 0.5 mi (0.8 km) upstream at different datum.

REMARKS.--Records excellent. No regulation. Dee Irrigation District canal diverts from right bank about 6 mi (10 km) above station for irrigation above station and in Middle Fork basin. Diversions from Green Point Creek basin above station for irrigation near Oak Grove; water from two of these diversions is carried in Hood River Irrigation District canal.

AVERAGE DISCHARGE.--46 years (water years 1914, 1933-77), 561 ft^3/s (15.89 m^3/s), 406,400 acre-ft/yr (501 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge not determined, Dec. 22, 1964, gage height, 27.0 ft (8.23 m), from floodmarks; maximum daily, 15,000 ft^3/s (425 m^3/s) Dec. 23, 1964; minimum, 93 ft^3/s (2.63 m^3/s) Aug. 22, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,120 ft^3/s (31.7 m^3/s) Mar. 27, gage height, 4.96 ft (1.512 m), no peak above base of 4,100 ft^3/s (116 m^3/s); minimum, 112 ft^3/s (3.17 m^3/s) Aug. 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	279	152	222	179	611	593	441	420	179	129	171
2	163	222	151	215	173	494	530	534	376	173	126	163
3	163	197	151	206	167	475	482	657	354	163	126	195
4	154	183	149	200	163	403	506	598	607	160	129	255
5	149	173	149	189	162	370	559	522	546	151	127	266
6	151	167	147	187	158	373	643	452	514	147	126	210
7	151	167	149	187	154	700	774	413	490	142	122	183
8	151	162	185	187	152	901	863	399	427	144	118	154
9	149	160	213	187	156	831	705	396	360	149	118	144
10	151	156	187	187	200	625	572	456	330	145	122	139
11	152	152	179	187	224	506	530	502	312	144	126	134
12	147	151	173	187	226	463	494	427	292	151	129	130
13	145	151	169	189	295	410	526	389	279	142	127	127
14	142	152	165	191	238	367	463	386	268	139	124	126
15	140	191	171	217	217	333	441	399	253	139	121	124
16	139	238	183	266	208	309	460	383	241	139	122	127
17	135	226	175	273	208	287	403	452	238	149	124	127
18	134	258	187	345	197	290	373	427	238	165	124	135
19	134	213	177	376	191	348	345	403	229	149	124	152
20	134	195	169	327	191	321	333	367	217	140	124	200
21	134	187	165	295	206	312	327	393	231	158	126	330
22	132	181	162	271	261	336	333	373	233	152	121	250
23	132	175	171	248	243	367	380	370	224	140	115	255
24	142	171	167	233	226	354	490	363	202	142	139	559
25	273	185	173	215	233	327	602	336	206	145	144	441
26	208	171	370	208	263	324	550	396	195	147	229	345
27	169	162	518	202	406	836	482	438	193	142	139	287
28	158	160	351	195	710	607	463	431	185	142	195	284
29	152	158	298	187	---	502	475	389	193	130	255	318
30	149	154	263	181	---	449	452	380	181	129	434	348
31	197	---	238	181	---	438	---	380	---	130	222	---
TOTAL	4786	5497	6257	6941	6407	14269	15149	13252	9034	4567	4607	6679
MEAN	154	183	202	224	229	460	505	427	301	147	149	223
MAX	273	279	518	376	710	901	863	657	607	179	434	559
MIN	132	151	147	181	152	287	327	336	181	129	115	124
AC-FT	9490	10900	12410	13770	12710	28300	30050	26290	17920	9060	9140	13250

CAL YR 1976 TOTAL 173157 MEAN 473 MAX 3480 MIN 132 AC-FT 343500
WTR YR 1977 TOTAL 97445 MEAN 267 MAX 901 MIN 115 AC-FT 193300

14120000 HOOD RIVER AT TUCKER BRIDGE, NEAR HOOD RIVER, OR

LOCATION.--Lat 45°39'20", long 121°32'50", in SE¼ sec.15, T.2 N., R.10 E., Hood River County, Hydrologic Unit 17070105, on right bank 25 ft (8 m) downstream from Tucker Bridge, 0.5 mi (0.8 km) upstream from Odell Creek, 4.5 mi (7.2 km) southwest of Hood River, and at mile 6.1 (9.8 km).

DRAINAGE AREA.--279 mi^2 (723 km^2).

PERIOD OF RECORD.--October 1897 to December 1899, September 1913 to September 1914, August 1915 to September 1917, January 1965 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1318: 1899. WSP 1935: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 383.2 ft (116.80 m) above mean sea level (Oregon State Highway Department bench mark). Prior to July 23, 1915, nonrecording gage at bridge at various datums. July 23 to Dec. 21, 1915, water-stage recorder at site 0.8 mi (1.3 km) upstream at different datum. January 1916 to September 1917, nonrecording gage at bridge at different datum. Jan. 16 to July 23, 1965, nonrecording gage at bridge.

REMARKS.--Records good. Some daily fluctuation caused by diversion dam above station and sawmill at Dee. Diversions above station for irrigation.

AVERAGE DISCHARGE.--17 years (water years 1898-99, 1914, 1916-17, 1966-77), 1,124 ft^3/s (31.83 m^3/s), 814,300 acre-ft/yr (1.00 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,700 ft^3/s (558 m^3/s), Jan. 15, 1974, gage height, 14.48 ft (4.414 m); minimum recorded, 136 ft^3/s (3.85 m^3/s) Sept. 16, 1915, caused by temporary storage behind dam at Dee.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 20.6 ft (6.28 m), present datum, discharge, 33,200 ft^3/s (940 m^3/s), from rating curve extended above 1,500 ft^3/s (42.5 m^3/s) on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,500 ft^3/s (42.5 m^3/s) Mar. 27, gage height, 5.05 ft (1.54 m), no peak above base of 4,500 ft^3/s (127 m^3/s); minimum, 182 ft^3/s (5.15 m^3/s) Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	355	604	380	440	377	906	814	698	685	312	238	347
2	374	465	377	440	366	750	754	782	593	300	236	355
3	361	422	380	422	355	732	693	963	530	259	236	478
4	332	394	380	422	350	632	724	891	973	236	244	681
5	314	377	374	388	350	589	795	786	906	220	236	612
6	317	377	374	350	345	581	896	681	867	205	230	437
7	317	382	377	355	342	927	1050	620	867	203	215	396
8	322	377	431	345	340	1240	1180	597	786	209	205	355
9	319	371	468	319	342	1120	984	589	632	228	201	322
10	317	363	425	382	402	896	819	644	548	222	218	322
11	319	369	411	422	446	754	763	719	509	230	236	314
12	307	388	405	453	431	698	732	624	465	247	244	310
13	305	385	396	585	548	628	772	574	449	226	249	291
14	300	388	391	488	446	570	698	574	428	238	244	275
15	298	472	396	495	417	523	660	589	391	228	249	251
16	293	593	422	552	399	492	711	563	371	236	247	244
17	284	516	402	548	396	462	620	628	366	275	251	238
18	293	600	414	620	382	459	574	608	377	329	255	261
19	300	502	396	681	374	530	533	563	366	275	259	314
20	295	468	388	585	374	498	512	526	363	236	251	347
21	298	446	385	537	402	482	502	585	371	281	270	509
22	295	434	380	502	465	512	505	578	399	279	238	405
23	293	422	391	468	440	559	570	530	388	275	213	411
24	307	417	382	446	422	541	724	505	350	298	291	786
25	537	434	388	425	417	505	896	462	358	300	266	648
26	431	408	668	411	465	492	847	544	340	302	459	519
27	355	385	857	408	616	1130	746	600	353	286	251	440
28	337	388	624	396	1030	872	724	585	347	293	342	453
29	327	391	552	388	---	737	759	523	391	232	566	485
30	322	388	498	374	---	668	741	502	310	228	857	530
31	411	---	462	380	---	640	---	566	---	240	405	---
TOTAL	10235	12926	13574	14027	12039	21125	22298	19199	15079	7928	8902	12336
MEAN	330	431	438	452	430	681	743	619	503	256	287	411
MAX	537	604	857	681	1030	1240	1180	963	973	329	857	786
MIN	284	363	374	319	340	459	502	462	310	203	201	238
AC-FT	20300	25640	26920	27820	23880	41900	44230	38080	29910	15730	17660	24470

CAL YR 1976 TOTAL 354065 MEAN 967 MAX 6320 MIN 284 AC-FT 702300
WTR YR 1977 TOTAL 169668 MEAN 465 MAX 1240 MIN 201 AC-FT 336500

14128600 COLUMBIA RIVER AT STEVENSON, WA

LOCATION.--Lat 45°41'58", long 121°52'02", in NW¼SE¼ sec.36, T.3 N., R.7½ E., Skamania County, Hydrologic Unit 17070105, on right bank 0.9 mi (1.4 km) east of Stevenson, and at mile 151.3 (243.4 km).

DRAINAGE AREA.--239,800 mi^2 (621,100 km^2), approximately.

PERIOD OF RECORD.--October 1973 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 79.79 ft (24.320 m) June 20, 1974; minimum, 70.01 ft (21.339 m) Sept. 13, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 77.53 ft (23.631 m) June 3; minimum, 71.93 ft (21.924 m) Feb. 19.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	76.33	75.17	75.84	74.72	73.15	73.81	76.43	72.87	74.62	76.48	75.25	75.70
2	76.58	75.51	76.13	75.01	72.76	73.69	76.91	73.05	75.19	76.15	74.36	74.97
3	76.37	73.93	74.97	75.08	73.25	73.96	76.79	73.64	75.24	76.69	72.94	74.76
4	76.79	72.89	75.10	74.99	72.87	73.82	76.22	73.38	74.45	77.05	73.65	75.52
5	77.26	74.31	75.77	76.20	72.21	74.00	75.25	73.30	74.16	76.40	74.14	75.59
6	77.24	73.87	75.60	76.19	74.07	74.60	75.14	72.36	73.81	76.60	73.80	75.03
7	76.50	73.52	75.00	74.70	72.46	73.48	75.24	72.37	73.72	77.24	74.01	75.73
8	77.06	75.32	76.24	75.30	72.40	73.40	76.49	73.00	74.50	76.77	73.67	75.04
9	77.10	74.76	75.31	75.28	73.08	74.20	76.47	73.42	74.97	75.94	73.06	74.21
10	74.91	73.62	74.46	76.32	72.83	74.36	76.77	74.09	75.51	75.50	72.28	73.94
11	74.92	72.43	73.47	76.64	73.87	74.92	76.58	75.21	75.86	76.80	73.43	75.06
12	75.89	73.71	74.83	76.51	74.28	75.44	76.60	75.35	76.02	76.93	74.21	75.69
13	76.62	74.28	75.57	76.43	74.47	75.38	77.31	74.54	75.95	76.71	73.65	75.33
14	76.28	72.96	74.64	76.58	75.01	75.88	76.83	73.99	75.50	76.76	73.81	75.74
15	77.08	73.29	75.21	76.05	73.95	75.18	76.35	73.65	74.95	76.70	74.89	75.74
16	77.30	75.22	75.85	76.39	73.92	75.31	76.43	73.58	75.04	76.46	74.11	74.98
17	76.11	74.66	75.46	76.54	74.25	75.46	77.06	74.33	76.09	76.95	72.94	74.82
18	76.32	72.46	74.77	76.96	75.08	76.14	76.52	74.42	75.18	76.70	73.57	75.15
19	76.47	73.04	75.29	76.93	75.05	76.24	75.69	73.14	73.82	76.64	72.77	74.91
20	76.12	72.70	74.37	76.68	74.78	75.86	76.18	72.11	74.14	77.29	73.93	75.68
21	76.27	72.49	74.58	76.50	74.60	75.44	76.42	72.82	74.68	76.86	73.25	75.46
22	77.15	72.66	74.94	76.41	73.49	75.00	76.51	75.09	76.01	76.70	73.93	75.35
23	76.43	73.47	74.45	76.12	74.01	74.88	77.09	73.83	75.22	76.98	74.38	75.60
24	73.96	72.21	73.31	76.91	73.70	75.18	76.96	74.62	75.65	77.20	73.92	75.50
25	74.86	72.08	73.46	76.64	74.50	75.70	76.53	75.04	75.65	76.99	74.32	75.98
26	75.42	72.33	73.91	77.19	76.31	76.75	75.97	74.12	74.78	76.63	72.83	75.05
27	76.28	72.66	74.42	77.11	75.92	76.55	75.09	73.53	74.34	76.62	74.07	75.22
28	77.27	73.72	75.57	76.80	74.44	75.21	76.01	72.96	74.39	76.21	73.46	75.05
29	76.79	74.59	75.78	76.95	73.39	75.44	76.96	75.03	76.01	77.05	75.62	76.36
30	76.77	75.92	76.38	76.92	73.28	75.03	76.84	75.37	76.07	76.97	74.99	75.49
31	76.68	74.72	75.44	---	---	---	76.58	75.35	75.95	76.44	74.90	75.65
MONTH	77.30	72.08	75.03	77.19	72.21	75.01	77.31	72.11	75.07	77.29	72.28	75.30

14128600 COLUMBIA RIVER AT STEVENSON, WA--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	76.48	74.05	75.38	76.29	73.26	74.83	76.77	73.80	75.45	75.40	73.01	74.32
2	76.29	73.92	75.05	76.75	73.40	75.27	76.80	75.31	75.92	76.51	72.65	74.77
3	77.03	74.51	75.79	77.16	73.96	75.64	76.48	73.68	74.51	76.50	73.14	75.00
4	76.65	73.70	75.49	76.94	74.44	75.74	74.43	72.47	73.34	75.95	73.05	74.49
5	76.60	74.22	75.39	76.83	75.02	75.81	74.32	72.45	73.54	75.42	72.61	74.29
6	76.10	73.25	74.01	76.39	73.83	74.94	74.64	72.82	74.00	76.67	74.19	75.36
7	75.69	72.02	73.95	76.59	73.04	75.08	75.00	73.19	74.20	76.60	75.58	76.06
8	75.76	72.87	74.40	77.12	73.79	75.56	75.32	73.86	74.62	76.16	73.25	74.29
9	76.12	73.52	74.76	77.13	73.94	75.49	74.93	74.12	74.54	75.57	72.40	73.95
10	75.82	73.12	74.39	76.83	74.13	75.13	74.59	73.02	73.64	75.84	72.71	74.30
11	74.77	72.96	73.78	76.80	74.67	75.96	74.73	72.20	73.45	77.02	74.62	75.92
12	75.66	72.54	74.08	77.02	76.19	76.50	75.31	72.65	73.88	77.17	74.96	76.32
13	75.17	73.50	74.06	77.02	74.19	75.49	76.20	72.92	74.51	77.06	75.80	76.45
14	74.88	72.25	73.40	77.25	73.70	75.62	76.31	74.12	75.27	76.88	75.65	76.26
15	74.91	71.95	73.20	77.17	74.07	75.48	75.97	73.31	74.71	75.90	73.69	74.38
16	75.03	72.30	73.58	77.47	73.76	75.72	75.86	73.81	74.78	75.28	72.61	74.06
17	76.18	72.48	74.18	77.06	73.67	75.22	75.78	73.85	74.46	75.31	72.65	73.95
18	75.96	73.92	75.02	76.76	73.82	75.20	75.74	72.40	74.01	74.79	72.65	73.70
19	75.24	71.93	73.27	77.02	73.82	75.35	75.92	73.35	74.58	75.37	73.03	74.35
20	75.32	74.01	74.56	76.66	74.44	75.18	76.06	73.62	74.97	76.12	72.84	74.83
21	75.70	73.32	74.51	75.30	73.04	74.06	76.39	73.35	74.98	77.00	74.53	75.71
22	76.61	72.53	74.87	75.30	72.76	73.78	76.26	73.48	74.66	76.61	74.30	75.48
23	76.17	72.57	74.66	75.60	72.18	73.49	76.30	73.32	74.73	76.81	73.22	75.15
24	75.94	72.97	74.64	76.21	72.31	74.01	76.18	74.47	74.99	76.56	73.44	75.24
25	76.66	72.90	74.90	76.50	72.60	74.70	76.14	73.36	74.54	76.81	72.88	75.14
26	76.60	74.83	75.71	76.15	73.12	74.76	76.29	73.23	74.64	76.67	73.76	75.46
27	76.40	73.18	74.36	75.69	73.79	74.60	75.28	72.67	73.99	77.31	74.28	75.83
28	76.49	72.68	74.53	75.53	72.85	74.39	75.49	72.09	73.74	76.72	75.24	76.15
29	---	---	---	77.16	74.11	75.82	76.64	72.57	74.46	76.64	74.34	74.98
30	---	---	---	76.67	74.72	75.84	75.86	73.63	74.84	75.57	73.66	74.54
31	---	---	---	77.12	75.08	76.38	---	---	---	76.67	73.22	74.57
MONTH	77.03	71.93	74.49	77.47	72.18	75.19	76.80	72.09	74.46	77.31	72.40	75.00

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	77.09	73.17	75.30	75.80	73.53	74.49	75.96	74.61	75.50	76.56	73.03	74.87
2	77.47	74.39	75.91	75.27	73.14	74.07	76.08	73.14	74.79	76.81	74.32	75.59
3	77.53	73.73	75.73	75.32	73.10	74.13	76.24	72.67	74.32	77.03	75.14	76.23
4	76.75	75.16	75.90	74.80	72.57	73.63	76.57	72.85	74.76	76.76	74.66	75.51
5	75.82	74.00	74.69	74.86	72.84	73.69	76.22	72.89	74.43	76.06	74.58	75.29
6	75.37	72.94	73.92	76.62	72.89	74.44	75.99	72.73	74.15	76.68	73.30	75.13
7	76.00	72.68	74.21	76.84	74.39	75.73	75.39	73.07	74.27	76.69	73.12	75.06
8	76.72	72.51	74.46	76.71	74.98	76.08	75.38	72.98	74.14	76.44	72.95	74.76
9	77.21	73.40	75.28	76.87	75.47	76.19	75.80	73.20	74.33	76.87	73.24	75.01
10	77.29	74.39	75.74	76.82	75.05	75.68	76.59	73.15	74.80	76.40	73.69	75.03
11	77.05	75.69	76.15	75.72	73.24	74.43	76.08	72.70	74.51	75.76	73.44	74.40
12	76.32	74.04	74.84	76.58	74.61	75.59	76.58	73.89	75.20	76.05	72.68	74.30
13	75.58	72.83	74.13	76.49	73.40	74.53	76.72	73.92	75.19	76.10	72.92	74.68
14	75.66	72.74	74.08	75.50	72.82	74.27	76.27	74.20	75.07	76.75	72.80	74.71
15	77.34	73.70	75.35	76.62	73.81	75.28	76.75	72.90	74.84	76.35	73.32	74.83
16	77.34	74.35	75.97	76.35	73.89	74.70	76.83	73.57	75.27	76.38	73.24	75.07
17	76.86	73.09	75.24	75.40	72.29	73.83	76.64	73.91	75.10	76.32	74.18	75.24
18	76.62	74.06	75.40	76.54	73.44	75.00	75.42	72.30	74.00	76.22	73.94	75.07
19	76.62	74.59	75.31	76.47	73.04	74.75	76.18	72.94	74.48	76.50	72.79	74.74
20	75.92	74.14	74.98	76.45	72.94	74.57	75.29	73.09	74.04	75.98	73.32	74.52
21	76.66	73.85	75.22	75.91	73.24	74.31	75.50	73.19	74.02	75.32	73.29	74.25
22	76.54	74.62	75.61	76.46	72.75	74.42	74.91	72.65	73.83	75.84	73.35	74.69
23	76.49	73.54	75.20	76.40	74.31	75.10	75.03	72.80	73.77	76.34	73.45	75.15
24	76.97	73.24	75.35	75.31	73.48	74.43	76.72	72.81	74.36	75.98	73.40	74.64
25	76.51	74.61	75.78	75.56	72.73	74.15	76.62	73.65	75.18	75.72	74.62	75.19
26	76.07	74.27	75.06	76.01	72.62	74.15	76.81	73.55	74.94	76.19	72.97	74.65
27	76.21	72.58	74.55	76.14	73.06	74.81	76.70	74.48	75.64	76.39	73.13	74.87
28	75.89	72.86	74.62	77.01	73.56	75.17	76.70	74.29	74.99	76.42	73.09	74.97
29	76.26	72.61	74.53	76.68	73.31	74.97	76.29	72.49	73.84	76.71	73.25	75.24
30	76.12	72.71	74.85	76.73	74.96	75.86	75.65	72.22	73.88	76.17	73.25	74.74
31	---	---	---	76.58	75.00	75.71	75.73	72.58	74.34	---	---	---
MONTH	77.53	72.51	75.11	77.01	72.29	74.77	76.83	72.22	74.58	77.03	72.68	74.94
YEAR	77.53	71.93	74.92									

14128890 COLUMBIA RIVER NEAR BONNEVILLE, OR

LOCATION.--Lat 45°37'35", long 121°58'22", in sec.29, T.2 N., R.7 E., Multnomah County, Hydrologic Unit 17080001, on left bank 0.2 mi (0.3 km) upstream from Moffett Creek, 2.2 mi (3.5 km) downstream from Bonneville Dam, at mile 143.5 (230.9 km).

DRAINAGE AREA.--239,900 mi^2 (621,300 km^2), approximately.

PERIOD OF RECORD.--October 1973 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 33.12 ft (10.095 m) June 22, 1974; minimum was less than 7.5 ft (2.29 m) Oct. 6, 8, 1973, Oct. 3, 1975, July 4-10, 17, Aug. 6, 7, 9, 14, 27, Sept. 2, 1977, when stage was known to be less than the lower recording limit.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 18.28 ft (5.572 m) Jan. 25; minimum was less than 7.5 ft (2.29 m) July 4-10, 17, Aug. 6, 7, 9, 14, 27, Sept. 2, 1977, when stage was known to be less than the lower recording limit.

REVISIONS.--The minimum gage heights for water years 1974-76 have been revised to less than or equal to 7.5 ft (2.29 m) Oct. 6, 8, 1973, Sept. 13, 1974, Oct. 3, 1975; revised daily minimum and mean gage heights are given below.

		Minimum	Mean
Oct.	6, 1973	—	--
	14	7.5	
Sept.	13, 1975	7.5	
	14	7.6	
	21	7.6	
Oct.	1	7.6	
	2	7.5	
	3	—	--
	11	7.6	
	12	7.6	

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	12.56	12.02	12.32	13.08	12.34	12.82	15.86	12.92	14.59	12.96	10.26	11.31
2	12.23	8.85	11.27	12.81	12.21	12.60	15.14	12.40	13.76	11.56	9.84	10.42
3	12.64	11.81	12.18	12.48	12.12	12.25	14.10	12.08	13.13	17.76	11.45	14.02
4	15.05	12.27	13.46	12.76	12.12	12.47	12.08	8.45	10.27	14.72	12.68	13.72
5	15.74	14.99	15.31	12.66	10.52	12.07	10.58	7.83	9.36	16.99	13.77	15.25
6	16.46	14.77	15.39	12.20	9.50	11.42	12.36	9.74	11.16	15.45	12.55	13.19
7	16.02	12.42	13.41	12.84	9.77	11.57	12.38	11.18	11.84	16.98	12.56	14.61
8	13.63	12.07	12.82	12.37	9.80	11.09	12.50	11.22	11.86	16.31	11.96	13.16
9	13.62	10.59	11.87	12.54	10.69	11.85	12.28	11.02	11.69	12.20	9.54	11.07
10	12.28	10.23	10.64	12.72	12.13	12.42	12.02	10.70	11.38	11.90	9.79	11.17
11	12.91	12.31	12.64	12.34	11.85	12.10	11.88	11.42	11.65	12.72	11.33	11.82
12	13.36	12.39	12.99	12.07	11.55	11.81	13.17	11.32	11.62	14.58	12.81	13.85
13	14.61	13.06	13.76	12.06	10.81	11.61	16.59	10.66	12.55	13.21	12.44	12.92
14	15.11	14.15	14.80	11.98	11.69	11.81	15.98	12.31	13.13	13.35	11.99	12.59
15	15.76	13.81	14.73	12.43	11.88	12.18	13.43	12.69	13.00	12.30	10.34	11.51
16	14.42	11.10	13.22	12.40	11.83	12.15	13.22	11.90	12.60	12.33	10.45	11.31
17	11.54	10.20	10.95	12.51	11.52	12.09	15.70	12.70	13.67	13.42	12.00	12.42
18	16.64	11.53	13.33	12.39	11.88	12.11	13.23	12.01	12.55	12.63	12.12	12.28
19	15.73	13.60	14.55	12.32	11.73	11.99	12.13	10.01	11.50	12.45	11.93	12.18
20	14.36	12.66	13.73	12.02	11.32	11.67	16.33	9.39	11.62	15.43	12.02	13.82
21	14.59	12.60	13.44	12.83	11.49	12.03	15.99	12.21	12.82	---	---	---
22	16.17	12.66	13.80	12.74	12.15	12.48	15.34	11.75	13.60	---	---	---
23	13.85	10.80	12.00	12.58	11.99	12.20	16.74	12.84	14.40	---	---	---
24	11.07	9.67	10.23	12.77	12.11	12.49	13.15	11.77	12.18	16.08	---	---
25	13.21	8.54	11.17	12.72	12.13	12.42	11.94	11.57	11.77	18.28	16.02	17.05
26	13.31	11.48	12.46	12.49	11.46	11.83	12.56	11.55	12.15	16.37	13.57	14.82
27	13.13	12.29	12.74	14.81	11.23	12.76	12.62	11.93	12.36	14.70	12.98	14.09
28	16.01	12.30	13.27	---	11.56	---	12.14	11.41	11.78	14.75	13.01	14.11
29	15.97	13.74	14.59	16.40	11.52	13.58	12.95	11.27	11.90	14.54	12.37	13.00
30	14.53	11.85	12.60	16.67	13.75	15.33	13.52	12.76	13.13	13.74	12.43	12.80
31	12.63	11.86	12.16	---	---	---	14.51	12.96	13.94	16.43	13.78	15.37
MONTH	16.64	8.54	12.96	16.67	9.50	12.24	16.74	7.83	12.35	18.28	9.54	13.10

14128890 COLUMBIA RIVER NEAR BONNEVILLE, OR--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	15.82	13.46	14.31	---	---	---	13.37	11.62	12.51	10.89	10.11	10.41
2	14.91	14.24	14.56	---	---	---	11.62	11.14	11.36	13.27	10.38	12.32
3	15.86	12.93	13.98	14.92	12.02	13.23	11.22	9.14	10.08	14.66	13.10	14.21
4	16.10	11.59	13.14	14.95	11.65	12.41	11.92	8.87	10.72	14.91	14.25	14.55
5	11.68	11.06	11.44	12.20	11.70	11.96	11.17	8.53	9.92	14.97	13.55	14.28
6	11.61	8.92	10.16	12.67	11.82	12.29	11.21	8.48	10.16	13.73	12.14	13.23
7	14.35	7.60	10.92	13.03	12.32	12.66	10.94	8.42	9.97	13.08	12.18	12.65
8	14.47	11.89	12.75	13.62	12.69	13.09	10.59	7.83	9.28	13.35	12.55	12.96
9	12.47	11.67	12.07	13.97	12.87	13.39	9.73	7.98	8.99	13.28	12.66	12.97
10	12.88	11.72	12.28	13.47	12.46	13.14	10.03	7.60	8.95	13.09	12.32	12.78
11	12.44	9.55	11.43	12.54	12.05	12.29	11.01	8.87	10.34	13.54	11.97	12.68
12	10.82	9.11	10.09	12.88	12.16	12.43	10.66	9.54	9.93	14.03	11.85	12.80
13	10.15	8.85	9.49	12.93	12.18	12.49	11.62	9.42	10.26	13.99	12.15	12.49
14	12.16	9.28	10.88	13.79	12.07	12.50	12.39	10.80	11.95	12.64	12.02	12.29
15	12.51	9.31	11.57	13.95	12.29	12.54	12.62	10.21	12.01	13.01	12.11	12.65
16	12.28	10.63	11.72	17.40	12.11	14.06	12.34	9.50	10.25	13.40	12.50	12.93
17	10.62	9.70	10.12	16.43	12.63	13.27	9.74	8.74	9.02	13.41	12.64	13.05
18	11.86	9.92	11.18	13.03	12.29	12.59	10.57	7.50	9.12	13.43	11.38	12.80
19	11.87	9.92	10.95	13.11	11.68	12.40	10.61	8.15	10.02	11.36	9.71	10.68
20	10.44	9.03	9.54	11.71	11.07	11.37	11.71	10.09	10.82	10.29	9.32	9.71
21	12.56	10.02	11.23	12.19	11.39	11.76	11.79	10.16	11.00	12.56	9.55	12.00
22	15.99	8.84	11.78	12.08	11.31	11.76	12.37	10.89	11.42	12.64	12.09	12.36
23	13.03	11.75	12.39	12.25	10.74	11.62	11.04	8.34	9.04	12.92	12.02	12.55
24	12.25	11.80	12.05	12.19	10.86	11.62	8.90	8.17	8.57	12.57	11.84	12.30
25	13.18	11.75	12.29	11.79	10.23	11.32	11.84	8.40	10.43	17.87	11.74	13.67
26	12.11	11.17	11.73	10.62	8.80	9.85	12.42	10.79	11.75	17.90	14.68	15.45
27	12.03	11.23	11.68	10.08	9.12	9.55	12.80	11.69	12.36	16.09	14.73	15.47
28	12.54	11.62	12.22	11.33	9.47	10.67	12.65	10.28	11.52	16.10	12.27	13.26
29	---	---	---	14.30	10.27	11.80	11.85	9.57	10.48	12.93	10.69	12.56
30	---	---	---	12.22	10.93	11.74	11.08	9.56	10.60	10.65	9.54	10.06
31	---	---	---	13.67	10.78	11.89	---	---	---	13.83	9.49	12.33
MONTH	16.10	7.60	11.71	17.40	8.80	12.12	13.37	7.50	10.42	17.90	9.32	12.72

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.25	13.09	14.67	10.63	8.10	9.15	11.58	7.99	9.95	9.57	8.12	8.91
2	16.32	13.38	14.61	9.24	7.50	8.35	12.84	10.94	11.63	9.06	---	---
3	17.02	13.19	14.83	9.24	7.50	8.20	11.59	8.98	10.20	10.64	7.60	9.06
4	16.07	11.92	12.66	8.92	---	---	11.86	9.43	11.04	10.87	7.70	9.03
5	12.07	9.62	10.38	8.45	---	---	12.02	9.17	11.18	8.41	7.50	7.86
6	13.56	10.53	12.39	7.94	---	---	9.58	---	---	10.98	7.50	9.91
7	13.54	11.27	12.84	8.56	---	---	8.68	---	---	11.51	10.47	11.06
8	14.93	12.77	13.74	10.44	---	---	9.44	7.50	8.48	11.59	9.14	10.29
9	14.55	13.11	13.51	9.82	---	---	9.93	---	---	10.76	8.89	9.63
10	13.61	12.38	13.13	7.76	---	---	9.46	7.60	8.70	10.17	7.75	8.59
11	13.57	10.24	11.35	9.00	7.82	8.59	10.21	8.48	9.41	8.48	7.60	7.84
12	11.46	9.33	10.39	9.89	8.41	9.07	11.12	8.13	9.86	9.39	7.50	8.46
13	13.37	9.43	11.54	12.08	8.76	10.45	8.91	7.60	8.08	11.02	8.81	9.80
14	13.83	12.09	12.66	10.14	8.24	9.11	8.53	---	---	11.37	10.09	10.81
15	14.62	11.73	12.73	10.81	9.80	10.25	10.54	7.60	9.27	11.42	10.84	11.06
16	15.21	12.19	13.90	10.71	7.81	8.64	11.81	9.81	10.90	11.38	10.22	10.88
17	15.28	10.89	13.45	8.27	---	---	11.51	9.84	10.72	11.06	9.30	9.83
18	13.38	11.96	12.52	11.60	7.50	10.07	11.54	8.96	10.11	10.20	8.32	8.85
19	---	---	---	11.86	10.28	11.17	11.81	8.92	10.43	10.61	9.68	10.16
20	---	---	---	11.40	9.53	10.36	10.79	8.14	8.86	11.23	9.07	10.46
21	---	---	---	11.02	9.11	10.05	9.10	7.60	7.94	10.13	8.77	9.61
22	---	---	---	9.48	7.75	8.75	10.74	7.50	9.71	9.83	8.71	9.20
23	---	---	---	8.73	7.60	7.91	11.85	9.30	10.57	11.01	8.62	10.43
24	---	---	---	8.20	7.50	7.79	9.95	9.08	9.55	11.49	9.39	10.23
25	---	---	---	9.29	7.73	8.82	10.15	8.57	9.26	10.42	8.96	9.80
26	---	---	---	9.42	8.46	8.71	9.69	7.60	8.48	11.21	9.87	10.44
27	---	---	---	9.22	7.99	8.66	8.68	---	---	11.44	10.06	10.89
28	---	---	---	10.05	7.96	9.02	8.63	7.60	8.11	11.47	10.32	10.94
29	---	---	---	10.42	8.69	9.72	10.03	8.24	9.09	11.64	10.21	11.28
30	---	---	---	10.25	8.02	9.03	11.50	8.19	9.60	11.49	11.02	11.25
31	---	---	---	10.14	8.01	8.40	9.62	8.03	8.96	---	---	---
MONTH	17.02	9.33	12.85	12.08	7.50	9.14	12.04	7.50	9.61	11.64	7.50	9.97
YEAR	18.28	7.50	11.62									

14128910 COLUMBIA RIVER AT WARRENDALE, OR
(National stream-quality accounting network station)

LOCATION.--Lat 45°36'45", long 122°01'35", in NW¼SE¼ sec.35, T.2 N., R.6 E., Multnomah County, Hydrologic Unit 17080001, on left bank 0.1 mi (0.2 km) downstream from Tumult Creek, 1.0 mi (1.6 km) west of Warrendale, 5.1 mi (9.2 km) downstream from Bonneville Dam, and at mile 141.0 (226.9 km).

DRAINAGE AREA.--240,000 mi^2 (621,600 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1971 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 30.91 ft (9.421 m) June 20, 1972; minimum, 4.49 ft (1.369 m) July 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 13.76 ft (4.194 m) Jan. 25; minimum, 4.49 ft (1.369 m) July 10.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.63	9.01	9.31	9.94	9.30	9.62	12.10	10.16	10.96	10.18	7.62	8.62
2	9.41	7.34	8.59	9.59	9.17	9.38	10.92	9.77	10.38	8.44	7.04	7.58
3	9.37	8.72	9.06	9.26	8.73	8.98	10.86	9.37	10.07	12.53	8.29	10.18
4	11.21	9.17	9.89	9.65	8.85	9.25	9.35	6.84	8.10	11.90	9.65	10.55
5	12.07	11.17	11.60	9.48	8.52	9.13	8.02	5.84	6.84	12.82	10.44	11.31
6	12.36	11.35	11.81	9.12	7.50	8.36	9.40	7.28	8.14	12.39	9.45	10.18
7	12.02	9.51	10.31	9.74	7.68	8.60	9.53	8.43	8.93	12.49	9.58	10.62
8	10.45	9.22	9.73	9.47	7.63	8.40	9.88	8.63	9.11	12.41	9.23	10.30
9	10.45	8.32	9.30	9.59	7.93	8.75	9.66	8.51	9.01	9.30	7.26	8.37
10	9.10	7.66	8.17	9.56	9.09	9.29	9.21	8.13	8.61	8.62	7.25	8.17
11	9.93	9.06	9.43	9.32	8.68	8.96	8.90	8.44	8.70	9.09	7.89	8.40
12	10.10	9.23	9.70	9.21	8.28	8.68	9.20	8.30	8.62	11.07	9.14	10.26
13	11.10	9.78	10.26	8.82	7.99	8.49	11.51	8.11	9.05	10.60	9.47	10.00
14	11.40	10.96	11.23	8.85	8.38	8.66	11.56	9.41	10.08	10.21	9.17	9.58
15	11.54	10.86	11.16	9.32	8.82	9.06	10.06	9.36	9.69	9.54	7.93	8.87
16	10.97	8.69	10.19	9.45	8.88	9.12	9.86	8.96	9.52	9.49	8.03	8.68
17	8.65	7.38	8.00	9.72	8.80	9.15	11.73	9.38	10.25	10.05	8.91	9.45
18	11.57	8.05	9.25	9.64	8.91	9.24	10.81	9.37	9.86	10.08	9.14	9.51
19	11.57	10.24	10.82	9.67	8.83	9.13	9.33	8.01	8.77	9.79	8.98	9.32
20	11.12	9.88	10.54	9.18	8.25	8.68	11.77	7.13	8.49	11.61	9.25	10.08
21	11.17	9.49	10.18	10.13	8.38	9.08	11.79	9.38	10.10	11.70	10.04	10.67
22	11.88	9.86	10.62	9.95	9.16	9.55	11.81	8.89	10.05	11.02	8.97	9.78
23	11.54	8.67	9.77	10.01	8.94	9.31	12.46	10.48	11.36	9.71	8.27	8.76
24	9.22	7.36	8.13	10.22	9.36	9.69	10.47	8.87	9.43	11.43	9.47	10.30
25	10.37	6.96	8.64	10.15	9.34	9.66	9.24	8.49	8.89	13.76	11.45	12.67
26	10.38	8.95	9.62	9.81	8.61	9.05	9.75	8.59	9.26	13.07	10.83	11.49
27	10.07	9.37	9.70	10.60	8.11	9.17	9.76	8.96	9.43	11.03	9.85	10.63
28	11.37	9.46	9.88	10.47	8.47	9.16	9.06	8.32	8.72	10.86	9.94	10.63
29	11.88	10.61	11.11	11.56	8.47	9.52	9.20	8.13	8.66	9.90	8.79	9.35
30	11.05	8.81	9.66	12.32	10.35	11.29	10.04	9.11	9.55	9.65	8.69	9.11
31	9.65	8.72	9.09	---	---	---	10.78	9.71	10.23	12.29	9.61	11.14
MONTH	12.36	6.96	9.83	12.32	7.50	9.14	12.46	5.84	9.31	13.76	7.04	9.82

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.11	10.27	11.03	9.96	9.17	9.64	9.92	9.13	9.61	8.42	7.62	8.00
2	10.75	10.28	10.52	9.58	9.23	9.42	9.13	8.44	8.77	10.04	7.74	9.25
3	11.19	9.43	10.19	11.14	9.26	10.11	8.59	7.27	7.95	11.57	9.89	11.01
4	11.48	8.78	10.05	11.19	9.40	9.81	9.08	6.74	8.11	11.98	11.22	11.55
5	8.86	7.99	8.40	9.56	8.94	9.21	8.54	6.99	7.85	11.99	10.87	11.45
6	8.76	6.96	7.63	10.03	8.94	9.50	8.60	6.85	7.97	11.15	9.88	10.63
7	9.84	5.28	7.37	10.65	9.40	9.99	8.71	6.81	7.98	10.45	9.64	9.96
8	10.04	9.10	9.57	11.19	10.10	10.61	8.41	6.50	7.55	10.43	9.68	10.02
9	9.61	8.80	9.13	11.67	10.38	11.04	7.88	6.39	7.17	10.24	9.75	9.98
10	10.08	8.61	9.31	11.02	9.98	10.64	7.13	5.94	6.79	10.03	9.38	9.84
11	9.38	7.58	8.69	10.00	9.30	9.65	8.23	6.87	7.65	10.10	9.31	9.62
12	8.41	7.00	7.77	10.37	9.49	9.82	7.91	6.97	7.44	10.27	9.23	9.63
13	7.81	6.58	7.10	10.23	9.49	9.76	8.32	6.86	7.65	10.29	9.21	9.65
14	9.02	6.73	7.75	9.85	9.42	9.59	9.17	8.21	8.83	9.80	9.03	9.39
15	9.46	7.70	8.58	9.96	9.40	9.67	9.58	8.34	9.01	10.02	9.09	9.62
16	9.23	8.47	8.96	12.73	9.28	10.48	9.41	7.33	8.09	10.28	9.43	9.88
17	8.44	7.27	7.85	12.62	9.94	10.62	7.49	6.46	6.94	10.38	9.60	9.96
18	8.97	7.35	8.23	9.95	9.47	9.74	7.84	5.64	6.75	10.40	9.43	9.92
19	8.87	7.60	8.29	10.11	9.29	9.66	7.87	6.50	7.48	9.21	7.44	8.25
20	7.95	6.81	7.42	9.25	8.46	8.81	8.62	7.35	7.90	8.12	7.07	7.54
21	9.91	7.22	8.46	9.38	8.53	8.96	8.64	7.64	8.21	9.68	7.54	8.98
22	10.78	7.50	9.04	9.29	8.48	8.97	9.24	8.18	8.62	9.77	9.14	9.42
23	10.61	8.94	9.54	9.50	8.55	8.98	8.50	6.22	7.10	9.89	9.16	9.55
24	9.42	8.82	9.06	9.38	8.47	8.93	6.91	5.96	6.48	9.54	8.96	9.32
25	9.59	8.76	9.09	8.98	7.99	8.60	8.94	6.22	7.52	12.47	8.97	9.93
26	9.24	8.28	8.80	8.28	6.80	7.60	9.14	7.99	8.59	12.66	11.51	11.99
27	8.92	8.26	8.56	8.06	7.01	7.41	9.42	8.60	9.08	12.29	11.45	11.91
28	9.78	8.57	9.22	8.32	7.06	7.82	9.31	8.13	8.63	12.25	9.45	10.55
29	---	---	---	9.62	7.84	8.55	8.64	7.23	8.00	10.04	8.96	9.69
30	---	---	---	9.30	8.30	8.86	8.30	7.27	7.89	8.89	7.29	8.02
31	---	---	---	9.95	8.04	8.74	---	---	---	10.21	7.29	9.20
MONTH	12.11	5.28	8.77	12.73	6.80	9.39	9.92	5.64	7.92	12.66	7.07	9.79

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	12.28	10.24	11.29	8.50	6.64	7.40	8.69	5.88	7.35	7.64	6.12	6.89
2	12.20	10.80	11.55	7.54	5.78	6.73	9.13	8.31	8.71	7.18	5.46	6.10
3	12.70	10.54	11.59	7.23	5.74	6.51	9.09	6.79	7.84	7.82	5.62	6.63
4	12.54	9.41	10.39	6.87	5.46	6.27	8.94	7.30	8.23	8.18	5.87	6.97
5	9.58	7.91	8.41	6.70	5.18	5.92	9.12	7.39	8.49	6.83	5.35	5.87
6	10.23	8.25	9.45	6.36	4.71	5.50	7.83	5.24	6.59	7.57	5.76	6.99
7	10.35	9.13	9.97	5.98	5.02	5.56	6.41	5.46	5.89	8.30	7.55	7.99
8	10.89	10.12	10.47	7.22	5.68	6.42	6.47	5.71	6.21	8.53	6.85	7.60
9	10.93	10.05	10.40	7.54	5.00	6.04	6.89	5.60	6.21	7.31	6.46	6.89
10	10.08	9.76	9.97	6.07	4.49	5.18	6.75	6.08	6.43	7.26	5.71	6.49
11	10.09	8.26	8.70	6.69	5.07	6.18	7.33	6.18	6.91	6.74	5.38	6.05
12	8.42	7.54	7.89	7.15	5.97	6.62	8.11	6.21	7.15	7.10	5.34	6.29
13	9.76	7.23	8.52	8.60	6.81	7.68	7.19	5.76	6.44	8.42	6.34	7.30
14	10.09	9.27	9.63	7.32	6.19	6.76	6.99	5.26	6.07	8.83	7.71	8.25
15	10.44	9.05	9.53	8.01	7.00	7.55	7.87	5.48	6.94	9.00	8.09	8.46
16	11.20	9.67	10.47	7.90	5.77	6.72	8.77	7.23	8.16	8.98	7.85	8.36
17	11.16	9.42	10.32	6.74	5.21	5.93	9.04	7.43	8.18	8.96	7.00	7.72
18	10.47	7.92	8.91	8.67	5.35	7.25	9.03	6.96	7.91	8.19	6.20	6.87
19	7.99	6.56	7.38	8.81	7.97	8.36	8.86	6.63	7.73	8.27	7.30	7.70
20	8.05	6.16	7.22	8.76	7.28	7.87	8.82	6.04	6.96	8.89	7.14	8.14
21	7.81	5.85	7.05	8.38	6.94	7.60	7.31	5.13	6.04	7.86	6.62	7.31
22	8.25	6.36	7.50	7.52	5.85	6.62	7.55	5.98	7.01	7.70	6.52	7.05
23	8.66	7.88	8.14	7.03	5.10	5.94	8.54	7.18	7.82	8.46	6.36	7.77
24	8.59	7.53	7.94	6.56	5.29	5.77	8.17	6.79	7.36	8.98	7.34	8.05
25	8.33	7.40	7.79	7.16	5.60	6.51	8.01	6.53	7.15	8.27	6.89	7.65
26	8.17	6.07	6.92	7.38	5.84	6.57	8.02	5.90	6.80	8.80	7.46	8.08
27	7.99	6.67	7.25	7.34	5.76	6.56	7.27	5.44	6.37	8.81	7.90	8.39
28	8.74	5.92	7.48	7.71	5.88	6.82	7.25	5.74	6.47	9.11	8.07	8.47
29	8.59	7.22	7.83	8.08	6.44	7.35	7.89	6.29	7.03	9.14	8.21	8.74
30	9.51	7.79	8.74	7.47	6.10	6.83	8.37	6.38	7.52	9.06	8.29	8.66
31	---	---	---	7.44	5.78	6.65	7.67	6.18	6.95	---	---	---
MONTH	12.70	5.85	8.95	8.81	4.49	6.63	9.13	5.13	7.12	9.14	5.34	7.45
YEAR	13.76	4.49	8.68									

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1975 to current year.
WATER TEMPERATURES: October 1975 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 242 micromhos/cm May 15, 1977; minimum, 107 micromhos/cm June 5, 1976.
WATER TEMPERATURES: Maximum, 22.5°C Aug. 17, 18, 1977; minimum recorded, 5.0°C Feb. 24-28, 1977.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 242 micromhos/cm May 15; minimum, 137 micromhos/cm July 6.
WATER TEMPERATURES: Maximum, 22.5°C Aug. 17, 18; minimum recorded, 5.0°C Feb. 24-28.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	DIS-CHARGE (CFS)	TEMPER-ATURE (DEG C)	PH (UNITS)	DIS-SOLVED OXYGEN (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	FECAL COLI-FORM .7UM-MF (COL./100 ML)	FECAL STREP-TOCOCCI KF AGAR (COL. PER 100 ML)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)
OCT												
04...	1400	161500	16.3	8.0	9.3	161	B6	B1	6.2	18	4.3	6.1
22...	1200	154900	15.0	7.9	9.9	191	B3	B13	7.1	19	5.0	6.7
DEC												
03...	1130	148700	8.0	7.7	12.1	186	B4	<1	8.2	21	5.9	8.1
27...	1200	136700	5.9	8.3	11.9	195	B3	57	9.1	22	7.7	9.0
JAN												
24...	1400	180300	2.3	8.1	13.2	191	B3	B3	8.8	22	7.8	8.0
FEB												
28...	1300	132000	5.0	8.3	13.0	190	B2	21	8.5	22	6.2	7.7
MAR												
21...	1130	125600	5.8	8.2	12.9	188	<1	B5	7.5	22	5.9	6.6
APR												
28...	1200	126900	12.2	8.0	11.4	207	B4	44	6.3	24	6.1	7.8
MAY												
31...	1130	141700	13.9	8.5	11.1	164	<1	<1	3.6	21	5.0	5.5
JUL												
07...	0930	85300	18.0	8.2	9.4	139	B1	B4	4.2	17	4.6	4.5
25...	1400	96700	20.1	8.3	8.9	148	--	--	3.7	18	4.1	4.8
SEP												
02...	1100	83000	20.5	--	--	160	B2	49	6.9	19	3.0	4.4

DATE	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO
OCT												
04...	75	0	10	2.7	.2	.10	.23	.33	.02	63	1	.3
22...	73	0	12	3.0	.2	.11	.17	.28	.02	68	8	.4
DEC												
03...	88	0	15	3.3	.2	.25	.21	.46	.04	77	5	.4
27...	88	0	18	4.6	.2	.29	.39	.68	.03	87	14	.4
JAN												
24...	89	0	20	3.9	.2	.32	.10	.42	.04	87	14	.4
FEB												
28...	88	0	18	4.2	.2	.23	.97	1.2	.01	80	8	.4
MAR												
21...	88	0	20	4.0	.2	.10	.27	.37	.03	79	7	.3
APR												
28...	91	0	16	4.3	.2	.08	.35	.43	.03	85	10	.4
MAY												
31...	77	0	15	3.1	.3	.02	.17	.19	.01	73	10	.3
JUL												
07...	63	0	12	2.4	.1	.03	.28	.31	.04	61	10	.2
25...	65	0	11	2.5	.2	.00	.34	.34	.01	62	9	.3
SEP												
02...	72	--	9.6	2.2	.2	.11	.23	.34	.03	60	1	.2

B: RESULTS BASED ON NON-IDEAL COLONY COUNT

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TUR-BID-ITY (JTU)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT											
04...	83	86	36200	.11	3	6	2620	89	0	62	1.4
22...	84	90	35100	.11	3	4	1670	92	0	60	1.2
DEC											
03...	110	107	44200	.15	4	8	3210	78	18	72	--
27...	118	115	43600	.16	2	3	1110	62	2	72	--
JAN											
24...	115	116	56000	.16	2	9	4380	--	7	73	1.3
FEB											
28...	110	111	39200	.15	2	9	3210	89	0	72	--
MAR											
21...	117	111	39700	.16	3	5	1700	78	2	72	--
APR											
28...	131	111	44900	.18	3	10	3430	71	15	75	2.2
MAY											
31...	99	93	37900	.13	4	10	3830	60	13	63	--
JUL											
07...	81	77	18700	.11	3	8	1840	67	3	52	--
25...	81	77	21100	.11	2	9	2350	50	10	53	1.8
SEP											
02...	76	82	17000	.10	3	9	2020	--	6	59	--

DATE	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)
OCT											
22...	190	0	10	10	1	1	<10	0	20	0	<50
JAN											
24...	370	20	10	0	1	1	<10	1	0	0	<50
APR											
28...	200	10	20	0	2	1	<10	1	0	0	<50
JUL											
25...	190	20	20	0	1	1	<10	3	0	0	<50

DATE	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)
OCT											
22...	0	10	9	<100	0	30	10	--	0	.0	.0
JAN											
24...	0	10	6	<100	4	30	20	0	0	.0	.0
APR											
28...	0	20	6	<100	0	20	10	1	1	.0	.0
JUL											
25...	0	20	4	<100	24	10	0	0	0	.1	.1

14128910 COLUMBIA RIVER AT WARRENDALE, OR—Continued

PHYTOPLANKTON ANALYSES. OCTOBER 1976 TO JULY 1977

DATE	OCT 4.76	OCT 22,76	DEC 3.76	DEC 27,76	JAN 14.77
TIME	1400	1200	1130	1200	1400
TOTAL CELLS/ML	5500	4200	790	1700	2100
DIVERSITY: DIVISION	1.5	1.4	1.3	0.4	0.7
.CLASS	1.6	1.4	1.3	0.4	0.7
..ORDER	2.0	1.8	1.9	1.2	1.6
...FAMILY	2.7	2.0	2.1	1.4	2.1
....GENUS	3.2	2.6	2.9	2.3	2.6

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	*	0	--	-	--	-	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	790	14	--	-	--	-	--	-	--	-
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	--	-	--	-	*	0
....MICRACTINIUM	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	100	2	42	5	45	3	310	14
....CHODATELLA	--	-	--	-	--	-	--	-	36	2
....DICTYOSPHAERIUM	--	-	--	-	45	6	*	0	--	-
....OOCYSTIS	170	3	--	-	11	1	--	-	--	-
....TETRAEDRON	330	6	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	140	3	--	-	36	2	*	0
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	170	3	310	7	6	1	--	-	--	-
....TETRASTRUM	--	-	--	-	11	1	36	2	*	0
..TETRASPORALES										
...COCCOMYXACEAE										
....ELAKATOTHRIX	--	-	--	-	--	-	--	-	24	1
...PALMELLACEAE										
....GLOEOCYSTIS	--	-	--	-	22	3	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	12	1
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	460	8	440	10	160#	20	140	9	570#	27
....MELOSIRA	420	8	1100#	27	220#	28	420#	25	360#	17
....STEPHANODISCUS	--	-	*	0	*	0	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	--	-	--	-	*	0
....COCCONEIS	--	-	--	-	--	-	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	*	0	--	-
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	--	-	--	-	*	0
....EPITHEMIA	--	-	*	0	*	0	--	-	*	0
...DIATOMACEAE										
....DIATOMA	--	-	*	0	--	-	--	-	140	7
...FRAGILARIACEAE										
....ASTERIONELLA	960#	17	190	4	*	0	690#	41	570#	27
....FRAGILARIA	750	14	150	4	84	11	260#	15	24	1
....SYNEDRA	--	-	51	1	28	4	31	2	*	0
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	*	0	*	0	--	-	*	0
...NAVICULACEAE										
....DIPLONEIS	--	-	--	-	*	0	--	-	--	-
....NAVICULA	--	-	--	-	*	0	--	-	12	1
...NITZSCHIACEAE										
....NITZSCHIA	83	2	34	1	8	1	*	0	72	3
...SURIRELLACEAE										
....CYMATOPLEURA	--	-	--	-	*	0	--	-	--	-
...TABELLARIACEAE										
....TABELLARIA	--	-	--	-	*	0	*	0	*	0
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...OCHROMONADACEAE										
....OCHROMONAS	42	1	--	-	--	-	--	-	--	-
.XANTHOPHYCEAE										
..HETEROTRICHALES										
...TRIBONEMATACEAE										
....TRIBONEMA	--	-	--	-	--	-	--	-	*	0
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	500	9	68	2	--	-	--	-	--	-
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	--	-	--	-	*	0
....OSCILLATORIA	830#	15	1600#	38	--	-	--	-	*	0
..CHROCCOCCALES										
...CHROCCOCCAEAE										
....GOMPHOSPHAERIA	--	-	--	-	140#	18	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...GLENODINIACEAE										
....GLENODINIUM	--	-	--	-	--	-	--	-	12	1
...PERIDINIACEAE										
....PERIDINIUM	--	-	*	0	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO JULY 1977

DATE	FEB 28,77		MAY 31,77		JUL 7,77		JUL 25,77	
TIME	1300		1130		0930		1400	
TOTAL CELLS/ML	5500		3400		6000		5200	
DIVERSITY: DIVISION	0.1		0.0		0.1		1.1	
.CLASS	0.1		0.0		0.1		1.1	
..ORDER	1.0		0.5		0.9		1.6	
...FAMILY	1.4		0.5		1.0		1.7	
....GENUS	2.1		0.6		1.3		2.0	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	200	4
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	--	-	--	-
....MICRACTINIUM	--	-	--	-	*	0	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	32	1	*	0	94	2	50	1
....CHODATELLA	--	-	*	0	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	--	-
....CRUCIGENIA	--	-	--	-	--	-	50	1
....SCENEDESMUS	--	-	--	-	--	-	120	2
....TETRASTRUM	--	-	--	-	--	-	--	-
..TETRASPORALES								
...COCCOMYXACEAE								
....ELAKATOTHRIX	--	-	--	-	--	-	--	-
...PALMELLACEAE								
....GLOEOCYSTIS	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	2300#	42	*	0	150	2	110	2
....MELOSIRA	740	14	3100#	90	4200#	70	3300#	63
....STEPHANODISCUS	--	-	--	-	80	1	*	0
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	--	-
....COCCONEIS	32	1	--	-	--	-	37	1
....RHOICOSPHENIA	--	-	--	-	--	-	--	-
...CYMBELLACEAE								
....CYMBELLA	--	-	--	-	--	-	--	-
....EPITHEMIA	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	160	3	--	-	--	-	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	1500#	28	180	5	80	1	--	-
....FRAGILARIA	580	11	94	3	1300#	22	87	2
....SYNEDRA	--	-	36	1	--	-	75	1
...GOMPHONEMATACEAE								
....GOMPHONEMA	32	1	--	-	--	-	--	-
...NAVICULACEAE								
....DIPLONEIS	--	-	--	-	--	-	--	-
....NAVICULA	32	1	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	32	1	--	-	54	1	*	0
...SURIRELLACEAE								
....CYMATOPLEURA	--	-	--	-	--	-	--	-
...TABELLARIACEAE								
....TABELLARIA	--	-	--	-	--	-	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...OCHROMONADACEAE								
....OCHROMONAS	--	-	--	-	--	-	--	-
.XANTHOPHYCEAE								
..HETEROTRICHALES								
...TRIBONEMATACEAE								
....TRIBONEMA	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	660	13
...OSCILLATORIACEAE								
....LYNGBYA	--	-	--	-	--	-	--	-
....OSCILLATORIA	--	-	--	-	--	-	--	-
..CHROCCOCCALES								
...CHROCCOCCAEAE								
....GOMPHOSPHAERIA	--	-	--	-	--	-	500	10
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	--	-	--	-	--	-	--	-
...PERIDINIACEAE								
....PERIDINIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	LENGTH OF EXPO- SURE (DAYS)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)
DEC				
27...	27	1379	.390	.312
SEP				
02...	37	21450	.011	.002

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	150	160	168	179	215	190	197	221	183	140	158	165
2	151	159	171	180	214	189	195	219	183	142	159	165
3	152	158	173	179	208	190	193	222	177	142	161	165
4	154	157	173	178	202	192	192	225	173	143	162	165
5	158	156	172	184	196	192	191	227	173	139	161	167
6	158	154	174	187	188	192	190	228	171	137	161	170
7	155	153	176	185	186	189	190	222	169	140	158	166
8	155	153	176	183	184	187	191	218	168	145	158	168
9	156	154	176	184	185	189	192	216	170	143	158	168
10	157	155	178	184	186	190	191	220	172	141	158	167
11	159	156	180	184	185	189	191	222	172	138	160	168
12	161	157	182	185	183	191	191	232	167	138	158	168
13	162	157	182	186	---	189	190	237	166	138	161	169
14	161	157	181	187	---	188	189	240	166	139	164	171
15	160	158	179	188	---	188	189	242	165	141	166	171
16	161	160	176	189	---	191	190	240	166	143	164	171
17	162	162	175	190	---	192	190	230	163	145	164	170
18	162	165	176	192	---	195	192	220	161	144	165	170
19	164	168	179	194	---	197	194	214	157	145	164	172
20	166	170	181	196	---	198	196	211	157	148	166	171
21	168	169	182	198	---	198	199	206	153	152	168	169
22	168	168	183	202	---	199	198	204	153	154	168	166
23	166	171	184	203	---	202	198	201	154	152	168	166
24	166	175	188	202	183	201	199	198	155	149	169	166
25	167	175	190	202	186	200	202	194	159	152	169	166
26	166	171	188	204	186	199	202	190	155	152	168	168
27	162	168	185	206	188	195	204	188	152	154	168	170
28	160	165	185	209	189	195	208	186	152	156	165	171
29	160	164	182	212	---	196	214	185	149	156	164	172
30	160	166	180	213	---	197	220	185	144	156	165	169
31	160	---	179	214	---	198	---	185	---	157	165	---

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	18.0	13.0	13.0	9.5	9.5	7.0	7.0	6.0	5.5	5.5	5.5
2	18.5	18.0	13.0	13.0	9.5	9.5	7.0	7.0	6.0	5.5	6.0	5.5
3	18.0	17.5	13.0	13.0	9.5	9.5	7.0	6.5	5.5	5.5	6.0	6.0
4	17.5	17.0	13.0	13.0	9.5	9.0	7.0	7.0	5.5	5.5	6.0	5.5
5	17.5	17.0	13.0	13.0	9.0	9.0	7.0	6.5	5.5	5.5	6.0	5.0
6	17.5	17.0	13.0	12.5	9.0	9.0	6.5	6.5	5.5	5.5	6.0	5.5
7	17.5	17.0	12.5	12.5	9.0	8.5	6.5	6.0	5.5	5.5	6.0	6.0
8	17.5	17.0	13.0	12.5	9.0	9.0	6.0	6.0	5.5	5.5	6.0	6.0
9	17.5	17.5	13.0	12.5	9.0	8.5	6.0	6.0	5.5	5.5	6.0	6.0
10	17.5	17.0	12.5	12.5	8.5	8.5	---	---	6.0	5.5	6.0	5.5
11	17.5	17.0	12.5	12.5	8.5	8.5	---	---	6.0	5.5	6.0	5.5
12	17.5	17.0	12.5	12.0	8.5	8.0	---	---	6.0	6.0	6.0	6.0
13	17.0	16.5	12.5	12.0	8.5	8.0	---	---	---	---	6.0	5.5
14	16.5	16.5	12.0	12.0	8.0	8.0	---	---	---	---	6.0	5.5
15	16.5	16.0	12.0	12.0	8.0	8.0	---	---	---	---	6.0	5.5
16	16.5	16.0	12.0	12.0	8.0	8.0	---	---	---	---	6.0	6.0
17	16.0	15.5	12.0	12.0	8.0	8.0	---	---	---	---	6.0	6.0
18	15.5	15.0	12.0	12.0	8.0	8.0	---	---	---	---	6.0	6.0
19	15.0	14.5	12.0	12.0	8.0	8.0	---	---	---	---	6.5	6.0
20	15.0	14.5	12.0	11.5	8.0	7.5	---	---	---	---	6.5	6.0
21	15.0	14.5	11.5	11.5	8.0	7.5	6.0	5.5	---	---	6.5	6.0
22	15.0	14.5	11.5	11.5	7.5	7.5	6.0	5.5	---	---	7.0	6.0
23	14.5	14.5	11.5	11.0	8.0	7.5	5.5	5.5	---	---	7.0	7.0
24	14.5	14.0	11.0	11.0	8.0	7.5	5.5	5.5	5.0	5.0	7.5	7.0
25	14.5	14.0	11.0	11.0	7.5	7.5	5.5	5.5	5.0	5.0	7.5	7.0
26	14.5	14.0	11.0	10.5	7.5	7.5	5.5	5.5	5.0	5.0	7.5	7.0
27	14.0	14.0	11.0	10.0	8.0	7.5	5.5	5.5	5.5	5.0	7.5	7.0
28	14.0	14.0	10.5	10.0	8.0	7.5	5.5	5.5	5.5	5.5	7.5	7.0
29	14.0	13.5	10.0	10.0	7.5	7.5	5.5	5.5	---	---	7.5	7.0
30	13.5	13.5	10.0	9.5	7.5	7.5	5.5	5.5	---	---	8.0	7.0
31	13.5	13.0	---	---	7.5	7.0	6.0	5.5	---	---	7.5	7.5
MONTH	18.5	13.0	13.0	9.5	9.5	7.0	7.0	5.5	6.0	5.0	8.0	5.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	7.5	12.0	11.5	15.0	14.5	19.5	19.5	20.5	20.0	20.5	19.5
2	8.0	7.5	12.0	11.5	15.0	14.5	19.5	19.0	20.5	20.0	20.5	19.5
3	8.0	7.5	12.0	11.5	15.0	15.0	19.5	19.0	21.0	20.5	20.5	19.5
4	8.5	8.0	12.0	11.0	15.0	15.0	19.0	19.0	21.0	21.0	20.0	19.5
5	8.5	8.5	12.0	11.5	15.5	15.0	19.0	18.5	21.5	21.0	20.0	19.5
6	9.0	8.0	12.0	11.5	16.0	15.5	19.5	18.5	21.5	21.0	19.5	19.5
7	9.0	8.5	12.0	11.5	16.5	16.0	19.5	19.0	21.5	21.0	19.5	19.0
8	9.0	9.0	12.0	11.5	16.5	16.0	19.5	19.0	21.5	21.0	19.0	18.5
9	9.0	9.0	12.5	11.5	16.5	16.0	19.0	18.5	21.5	21.0	19.0	18.5
10	9.0	8.5	12.5	12.0	16.5	16.0	19.0	18.5	21.5	21.5	19.0	18.5
11	9.5	8.5	12.5	12.0	16.5	16.0	19.0	19.0	22.0	21.5	19.0	18.5
12	9.5	9.0	12.5	12.0	16.5	16.0	19.0	19.0	22.0	22.0	19.0	18.5
13	9.5	9.0	12.5	12.5	17.0	16.0	19.5	19.0	22.0	21.5	18.5	18.5
14	9.0	8.5	12.5	12.0	17.0	16.5	19.0	19.0	22.0	21.5	18.5	18.5
15	9.0	8.5	12.5	12.5	17.5	17.0	19.5	19.0	22.0	21.5	18.5	18.0
16	9.5	9.0	12.5	12.5	17.5	17.0	19.5	19.5	22.0	21.5	18.0	18.0
17	9.5	9.0	12.5	12.5	18.0	17.5	19.5	19.0	22.5	22.0	18.0	17.5
18	9.5	9.0	13.0	12.5	18.0	18.0	19.5	19.0	22.5	22.0	18.0	17.5
19	9.5	9.0	13.0	12.5	18.0	18.0	19.5	19.0	22.0	21.5	17.5	17.0
20	9.5	9.0	13.0	13.0	18.0	18.0	19.5	19.5	21.5	21.5	17.0	17.0
21	10.0	9.5	13.5	13.0	18.5	18.0	19.5	19.5	21.5	21.0	19.0	17.0
22	10.0	9.5	13.5	13.5	19.0	18.5	20.0	19.5	21.0	21.0	19.0	18.5
23	10.5	10.0	13.5	13.5	19.0	18.5	20.0	19.5	21.0	21.0	18.5	18.5
24	10.5	10.0	13.5	13.5	19.0	18.5	20.5	20.0	21.0	20.5	18.5	18.0
25	11.0	10.5	14.0	13.5	19.5	19.0	20.5	20.0	21.0	20.5	18.0	18.0
26	11.5	10.5	14.0	13.5	19.5	19.0	20.5	20.0	21.5	20.0	18.0	18.0
27	11.5	11.0	14.5	14.0	19.5	19.0	20.0	20.0	21.0	20.0	16.5	16.5
28	12.0	11.0	14.5	14.0	19.5	19.0	20.0	20.0	21.0	20.0	16.5	16.5
29	12.0	11.0	14.5	14.0	19.5	19.0	20.0	19.5	21.0	19.5	16.5	16.5
30	12.0	11.0	14.5	14.5	19.5	19.0	20.0	20.0	20.5	19.5	16.5	16.0
31	---	---	14.5	14.5	---	---	20.5	20.0	20.5	19.5	---	---
MONTH	12.0	7.5	14.5	11.0	19.5	14.5	20.5	18.5	22.5	19.5	20.5	16.0

14128950 COLUMBIA RIVER AT MULTNOMAH FALLS, OR

LOCATION.--Lat 45°34'45", long 122°06'55", in SW¼SE¼ sec.7, T.1 N., R.6 E., Multnomah County, Hydrologic Unit 17080001, on left bank at Multnomah Falls, 0.7 mi (1.1 km) upstream from mouth of Multnomah Creek, 2.1 mi (3.4 km) downstream from Oneonta Creek, and at mile 136.2 (219.1 km).

DRAINAGE AREA.--240,000 mi^2 (621,600 km^2), approximately.

PERIOD OF RECORD.--November 1971 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 31.11 ft (9.482 m) June 19, 20, 1972; minimum, 4.47 ft (1.362 m) July 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 13.75 ft (4.191 m) Jan. 25; minimum, 4.47 ft (1.362 m) July 10.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.52	8.89	9.21	9.89	9.16	9.55	12.28	10.16	10.95	---	---	---
2	9.22	7.15	8.47	9.55	9.12	9.34	10.85	9.68	10.30	---	---	---
3	9.25	8.64	8.95	9.21	8.70	8.96	10.79	9.31	10.02	---	---	---
4	11.09	9.09	9.81	9.58	8.82	9.21	9.28	6.83	8.05	---	---	---
5	11.98	11.11	11.50	9.46	8.48	9.08	---	5.79	---	---	---	---
6	12.25	11.31	11.74	9.01	7.51	8.35	---	---	---	---	---	---
7	12.01	9.50	10.28	9.68	7.63	8.56	---	---	---	---	---	---
8	10.36	9.16	9.65	9.40	7.61	8.36	---	---	---	---	---	---
9	10.33	8.25	9.22	9.55	7.92	8.72	---	---	---	---	---	---
10	9.05	7.62	8.09	9.47	9.04	9.25	---	---	---	---	---	---
11	9.83	9.00	9.33	9.29	8.65	8.94	---	---	---	---	---	---
12	10.07	9.21	9.63	9.17	8.28	8.65	---	---	---	---	---	---
13	10.98	9.74	10.17	8.79	7.94	8.46	---	---	---	---	---	---
14	11.29	10.90	11.13	8.79	8.35	8.61	---	---	---	---	---	---
15	11.47	10.77	11.08	9.24	8.78	9.00	---	---	---	---	---	---
16	10.90	8.58	10.08	9.39	8.82	9.05	---	---	---	---	---	---
17	8.54	7.35	7.95	9.63	8.71	9.06	---	---	---	---	---	---
18	11.55	8.08	9.28	9.57	8.81	9.15	---	---	---	---	---	---
19	11.53	10.19	10.78	9.58	8.71	9.06	---	---	---	---	---	---
20	11.01	9.77	10.48	9.12	8.22	8.67	---	---	---	---	---	---
21	11.06	9.44	10.12	10.03	8.37	9.04	---	---	---	---	---	---
22	11.79	9.77	10.54	9.93	9.14	9.51	---	---	---	10.95	8.91	9.74
23	11.35	8.62	9.66	9.94	8.93	9.28	---	---	---	9.66	8.25	8.72
24	9.08	7.33	8.09	10.06	9.25	9.58	---	---	---	11.39	9.42	10.25
25	10.30	6.98	8.56	10.00	9.24	9.54	---	---	---	13.75	11.45	12.64
26	10.28	8.88	9.55	9.72	8.55	8.98	---	---	---	13.03	10.78	11.45
27	10.08	9.27	9.64	10.54	8.08	9.10	---	---	---	10.96	9.77	10.54
28	11.35	9.37	9.79	10.41	8.45	9.11	---	---	---	10.79	9.89	10.56
29	11.75	10.51	11.02	11.51	8.44	9.45	---	---	---	9.86	8.78	9.35
30	10.94	8.74	9.59	12.29	10.32	11.23	---	---	---	9.61	8.69	9.08
31	9.55	8.67	9.02	---	---	---	---	---	---	12.17	9.55	11.05
MONTH	12.25	6.90	9.75	12.29	7.51	9.09	12.28	5.79	9.83	13.75	8.25	10.33

14128950 COLUMBIA RIVER AT MULTNOMAH FALLS, OR--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.04	10.21	10.98	9.83	9.11	9.51	9.76	9.07	9.51	8.36	7.56	7.93
2	10.80	10.26	10.54	9.50	9.14	9.33	9.03	8.36	8.69	9.94	7.60	9.15
3	11.13	9.43	10.17	11.01	9.12	9.98	8.52	7.19	7.88	11.45	9.83	10.91
4	11.42	8.84	10.03	11.09	9.32	9.73	9.04	6.69	8.03	11.87	11.11	11.46
5	8.81	7.99	8.38	9.47	8.86	9.14	8.47	6.98	7.79	11.90	10.90	11.38
6	8.68	7.01	7.63	9.88	8.88	9.40	8.57	6.83	7.91	11.06	9.85	10.57
7	9.88	5.46	7.38	10.52	9.32	9.89	8.63	6.78	7.92	10.35	9.59	9.90
8	10.06	9.03	9.55	11.02	9.98	10.50	8.34	6.44	7.48	10.32	9.64	9.95
9	9.49	8.73	9.06	11.51	10.26	10.92	7.80	6.27	7.11	10.18	9.63	9.92
10	9.92	8.55	9.20	10.90	9.96	10.56	7.01	5.87	6.72	9.89	9.30	9.73
11	9.25	7.46	8.61	9.94	9.30	9.60	8.08	6.75	7.56	9.98	9.27	9.54
12	8.36	6.88	7.67	10.17	9.40	9.71	7.84	6.87	7.36	10.13	9.19	9.55
13	7.71	6.40	7.01	10.07	9.40	9.65	8.16	6.78	7.55	10.14	9.17	9.56
14	8.91	6.67	7.69	9.74	9.33	9.51	9.07	8.14	8.74	9.64	8.97	9.30
15	9.34	7.61	8.50	9.88	9.35	9.61	9.46	8.27	8.93	9.86	9.01	9.53
16	9.12	8.42	8.88	12.65	9.22	10.36	9.24	7.28	8.01	10.14	9.35	9.78
17	8.37	7.20	7.76	12.47	9.87	10.51	7.42	6.42	6.87	10.23	9.50	9.87
18	8.89	7.26	8.17	9.83	9.35	9.62	7.76	5.60	6.67	10.29	9.37	9.84
19	8.83	7.55	8.27	9.96	9.20	9.54	7.77	6.46	7.40	9.32	7.41	8.19
20	7.89	6.83	7.38	9.17	8.42	8.73	8.52	7.32	7.85	8.03	7.01	7.47
21	9.72	7.18	8.36	9.24	8.41	8.86	8.57	7.59	8.15	9.56	7.39	8.88
22	10.68	7.38	8.93	9.20	8.43	8.88	9.24	8.13	8.56	9.66	9.09	9.33
23	10.56	8.95	9.48	9.44	8.48	8.89	8.41	6.16	7.05	9.78	9.13	9.46
24	9.29	8.74	8.97	9.29	8.38	8.84	6.83	5.90	6.41	9.45	8.89	9.23
25	9.34	8.64	8.96	8.84	8.08	8.49	8.54	6.16	7.42	12.40	8.92	9.84
26	9.17	8.20	8.70	8.18	6.66	7.47	9.01	7.90	8.49	12.61	11.41	11.89
27	8.82	8.19	8.47	7.89	6.75	7.29	9.29	8.54	9.01	12.15	11.35	11.81
28	9.59	8.49	9.08	8.18	6.99	7.71	9.26	8.08	8.55	12.13	9.38	10.47
29	---	---	---	9.49	7.73	8.44	8.56	7.14	7.93	9.92	8.89	9.60
30	---	---	---	9.26	8.16	8.77	8.24	7.21	7.83	8.83	7.25	7.97
31	---	---	---	9.74	7.93	8.60	---	---	---	10.07	7.19	9.12
MONTH	12.04	5.46	8.70	12.65	6.66	9.29	9.76	5.60	7.84	12.61	7.01	9.71

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	12.16	10.10	11.17	8.38	6.55	7.33	8.64	5.86	7.28	7.64	6.12	6.89
2	12.07	10.74	11.47	7.47	5.77	6.69	9.08	8.24	8.64	7.20	5.39	6.10
3	12.59	10.51	11.51	7.18	5.72	6.46	9.07	6.81	7.79	7.79	5.59	6.60
4	12.61	9.38	10.34	6.89	5.44	6.22	8.81	7.25	8.15	8.12	5.90	6.96
5	9.61	7.93	8.39	6.72	5.18	5.87	9.06	7.40	8.45	6.83	5.30	5.85
6	10.09	8.26	9.36	6.32	4.68	5.46	7.80	5.25	6.55	7.55	5.81	6.95
7	10.26	8.99	9.84	5.94	4.93	5.52	6.38	5.34	5.83	8.20	7.58	7.95
8	10.78	10.01	10.34	7.06	5.60	6.32	6.44	5.69	6.15	8.49	6.88	7.61
9	10.83	9.94	10.31	7.45	4.95	5.99	6.84	5.54	6.17	7.25	6.46	6.89
10	9.97	9.59	9.86	6.00	4.47	5.11	6.69	6.12	6.39	7.26	5.69	6.52
11	9.89	8.15	8.61	6.60	4.97	6.10	7.26	6.18	6.89	6.81	5.32	6.08
12	8.29	7.42	7.80	7.06	5.90	6.53	8.08	6.19	7.12	7.16	5.39	6.35
13	9.69	7.20	8.42	8.46	6.72	7.60	7.15	5.79	6.42	8.42	6.39	7.34
14	9.93	9.18	9.51	7.21	6.17	6.69	6.90	5.21	6.04	8.86	7.71	8.27
15	10.32	9.01	9.42	7.91	6.95	7.46	7.84	5.46	6.90	9.04	8.11	8.49
16	11.13	9.60	10.36	7.80	5.77	6.67	8.73	7.20	8.13	9.06	7.94	8.42
17	11.09	9.37	10.24	6.67	5.17	5.88	8.94	7.41	8.15	9.02	7.09	7.80
18	10.36	7.89	8.84	8.60	5.31	7.16	8.93	6.94	7.87	8.27	6.21	6.99
19	7.90	6.54	7.30	8.73	7.93	8.29	8.82	6.58	7.66	8.45	7.42	7.81
20	7.90	6.10	7.15	8.77	7.25	7.81	8.81	6.00	6.92	8.97	7.10	8.09
21	7.71	5.75	6.98	8.27	6.91	7.52	7.30	5.10	6.00	7.74	6.51	7.21
22	8.18	6.27	7.41	7.53	5.81	6.55	7.44	5.98	6.93	7.61	6.42	6.97
23	8.56	7.80	8.05	7.00	5.06	5.88	8.42	7.21	7.75	8.36	6.30	7.68
24	8.51	7.43	7.84	6.51	5.24	5.72	8.13	6.77	7.32	8.87	7.29	7.97
25	8.31	7.31	7.69	7.08	5.51	6.44	7.95	6.49	7.11	8.20	6.87	7.58
26	8.08	6.00	6.84	7.34	5.81	6.51	7.92	5.92	6.77	8.72	7.42	8.02
27	7.87	6.58	7.16	7.24	5.69	6.50	7.24	5.43	6.35	8.77	7.88	8.34
28	8.67	5.90	7.40	7.62	5.83	6.75	7.24	5.73	6.44	9.03	8.00	8.39
29	8.49	7.18	7.75	7.99	6.39	7.29	7.80	6.23	6.98	9.03	8.13	8.64
30	9.50	7.74	8.68	7.42	5.98	6.80	8.33	6.38	7.47	8.98	8.24	8.57
31	---	---	---	7.40	5.74	6.62	7.65	6.10	6.94	---	---	---
MONTH	12.61	5.75	8.86	8.77	4.47	6.57	9.08	5.10	7.08	9.06	5.30	7.44
YEAR	13.75	4.47	8.51									

14129400 COLUMBIA RIVER AT WASHOUGAL, WA

LOCATION.--Lat 45°34'30", long 122°21'10", in SE¼ sec.53, T.1 N., R.4 E., Clark County, Hydrologic Unit 17080001, on right bank on rock-fill point at south end of 17th Street, in Washougal, and at river mile 122.9 (197.7 km).

DRAINAGE AREA.--240,400 mi² (622,600 km²), approximately.

PERIOD OF RECORD.--October 1971 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded gage height, 28.87 ft (8.800 m) June 19, 1972; minimum, 3.68 ft (1.122 m) July 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 12.03 ft (3.667 m) Jan. 25; minimum, 3.68 ft (1.122 m) July 10.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.31	7.57	7.88	8.55	7.87	8.19	10.73	9.09	9.80	8.96	6.69	7.69
2	8.13	6.03	7.32	8.42	7.94	8.16	9.38	8.53	8.90	7.47	6.15	6.72
3	7.89	7.31	7.62	8.18	7.72	7.96	9.14	7.96	8.70	10.54	7.05	8.58
4	9.36	7.64	8.30	8.52	7.69	8.08	7.92	5.97	7.03	10.20	8.53	9.14
5	10.28	9.34	9.82	8.51	7.36	7.95	7.00	5.22	5.96	11.10	8.92	9.64
6	10.58	9.78	10.17	8.15	6.93	7.51	7.89	6.08	6.81	11.09	8.52	9.21
7	10.40	8.35	9.21	8.40	6.77	7.51	8.13	7.07	7.53	10.79	8.03	9.13
8	9.02	7.95	8.38	8.26	6.83	7.37	8.51	7.24	7.75	10.86	8.29	9.21
9	8.93	7.31	8.09	8.44	7.08	7.67	8.27	7.10	7.70	8.30	6.30	7.36
10	7.71	6.57	7.07	8.42	7.70	8.06	7.80	6.71	7.28	7.57	6.20	7.06
11	8.58	7.57	7.99	8.28	7.54	7.88	7.63	6.93	7.30	7.95	7.09	7.51
12	8.79	7.91	8.26	8.14	7.43	7.68	7.55	6.97	7.26	9.32	7.87	8.65
13	9.42	8.27	8.65	7.83	6.81	7.42	9.41	6.87	7.46	9.17	8.02	8.56
14	9.59	9.38	9.48	7.71	7.14	7.45	9.63	7.93	8.56	8.69	7.67	8.15
15	9.67	9.30	9.49	7.94	7.28	7.62	8.66	7.88	8.25	8.22	6.64	7.60
16	9.45	7.48	8.66	8.13	7.33	7.69	8.59	7.70	8.16	8.14	6.74	7.47
17	7.48	6.35	6.84	8.39	7.20	7.74	9.77	7.90	8.67	8.80	7.46	8.06
18	9.68	6.92	7.84	8.33	7.39	7.84	9.36	7.92	8.55	8.88	7.68	8.17
19	9.88	8.94	9.42	8.41	7.31	7.80	8.71	7.25	7.93	8.86	7.82	8.23
20	9.68	8.57	9.30	8.33	7.41	7.87	9.65	6.47	7.34	10.04	8.15	8.95
21	9.53	8.28	8.79	8.88	7.40	8.00	9.78	8.15	8.81	10.04	8.70	9.23
22	10.04	8.55	9.15	9.15	8.03	8.48	10.20	7.75	8.77	9.57	8.00	8.69
23	10.08	7.71	8.65	9.00	7.91	8.38	10.39	9.13	9.78	8.48	7.38	7.80
24	8.12	6.40	7.22	8.87	7.95	8.34	9.09	7.71	8.21	9.87	8.24	8.94
25	9.07	6.14	7.49	8.74	7.92	8.28	8.05	7.19	7.61	12.03	9.93	10.97
26	8.99	7.77	8.35	8.46	7.33	7.75	8.32	7.15	7.84	11.63	9.52	10.14
27	8.85	8.00	8.44	9.00	6.93	7.73	8.44	7.68	8.09	9.54	8.38	9.02
28	9.59	8.00	8.33	9.07	7.32	7.92	8.00	7.35	7.69	9.26	8.58	9.05
29	10.02	9.05	9.42	9.86	7.26	8.10	8.02	6.96	7.55	9.09	8.02	8.45
30	9.45	7.49	8.31	10.70	8.93	9.77	8.83	7.94	8.35	8.46	7.87	8.11
31	8.22	7.23	7.73	---	---	---	9.43	8.39	8.87	10.49	7.98	9.38
MONTH	10.58	6.03	8.44	10.70	6.77	7.94	10.73	5.22	8.01	12.03	6.15	8.54

14129400 COLUMBIA RIVER AT WASHOUGAL, WA--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.32	8.88	9.59	8.58	7.70	8.18	8.37	7.52	8.08	7.37	6.38	6.84
2	9.95	8.90	9.47	8.35	7.83	8.05	7.72	7.05	7.44	8.48	6.37	7.82
3	9.81	8.43	9.14	9.29	7.73	8.60	7.54	5.96	6.77	10.06	8.28	9.44
4	9.97	8.16	9.08	9.35	8.00	8.45	7.79	5.71	6.96	10.52	9.58	10.07
5	8.12	7.19	7.62	8.28	7.59	7.92	7.34	6.27	6.82	10.56	9.68	10.07
6	7.68	6.53	7.01	8.72	7.60	8.17	7.50	6.10	6.95	9.87	8.86	9.37
7	8.90	5.37	6.77	9.30	7.95	8.65	7.59	6.06	7.02	9.16	8.33	8.70
8	9.05	7.89	8.50	9.72	8.35	9.05	7.36	5.83	6.66	8.96	8.29	8.62
9	8.21	7.29	7.75	10.31	8.49	9.66	6.91	5.53	6.26	8.84	8.19	8.55
10	8.59	7.07	7.85	9.65	8.87	9.15	6.12	5.12	5.77	8.57	7.92	8.34
11	7.89	6.24	7.34	8.87	8.07	8.50	6.81	5.62	6.37	8.42	7.85	8.13
12	7.15	5.65	6.54	8.89	8.05	8.45	6.71	5.57	6.20	8.34	7.79	8.09
13	6.65	5.24	5.94	8.74	8.00	8.35	6.87	5.55	6.40	8.63	7.76	8.22
14	7.60	5.66	6.59	8.45	7.94	8.17	7.69	6.62	7.34	8.34	7.60	7.95
15	8.03	6.46	7.28	8.62	7.93	8.32	8.02	7.16	7.57	8.46	7.60	8.14
16	8.19	7.17	7.60	10.61	7.91	8.97	7.68	6.22	6.94	8.70	7.85	8.36
17	7.22	6.10	6.72	10.04	8.20	8.99	6.37	5.36	5.90	8.81	8.01	8.46
18	7.84	6.11	7.09	8.50	7.98	8.25	6.49	4.91	5.66	8.88	8.12	8.49
19	7.91	6.71	7.35	8.51	7.74	8.22	6.56	5.71	6.23	8.11	6.44	7.18
20	7.10	5.90	6.61	7.77	7.16	7.50	7.17	6.12	6.66	7.12	5.98	6.48
21	8.44	6.28	7.23	7.91	7.04	7.60	7.27	6.46	6.93	8.18	6.37	7.53
22	9.02	6.29	7.70	7.95	7.19	7.64	8.01	6.86	7.31	8.30	7.66	7.95
23	9.02	7.63	8.19	8.19	7.18	7.65	7.20	5.20	6.10	8.35	7.76	8.04
24	8.00	7.30	7.59	8.03	7.20	7.58	5.91	4.92	5.46	8.07	7.47	7.82
25	7.74	7.10	7.44	7.62	6.85	7.17	6.99	5.09	6.16	9.88	7.66	8.16
26	7.68	6.84	7.29	6.92	5.60	6.26	7.48	6.57	7.05	10.72	9.79	10.16
27	7.44	6.74	7.07	6.86	5.77	6.23	7.77	7.15	7.52	10.41	9.78	10.08
28	8.17	7.09	7.65	6.94	5.90	6.47	7.91	6.81	7.22	10.43	8.00	9.13
29	---	---	---	7.75	6.42	7.06	7.47	5.81	6.76	8.64	7.90	8.29
30	---	---	---	7.61	6.64	7.30	7.03	5.85	6.65	7.88	6.20	7.05
31	---	---	---	8.01	6.49	7.24	---	---	---	8.46	6.00	7.83
MONTH	10.32	5.24	7.57	10.61	5.60	7.99	8.37	4.91	6.70	10.72	5.98	8.36

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.40	8.47	9.62	7.36	5.62	6.43	7.39	4.93	6.20	6.61	5.20	5.96
2	10.44	9.58	10.02	6.72	5.08	5.89	7.86	6.81	7.33	6.26	4.37	5.26
3	10.81	9.37	10.04	6.47	4.98	5.69	7.84	5.83	6.72	6.84	4.64	5.57
4	10.91	8.23	9.26	6.09	4.76	5.46	7.74	6.18	6.89	6.90	4.99	5.93
5	8.58	6.86	7.59	5.93	4.44	5.12	7.80	6.61	7.17	6.02	4.29	4.93
6	8.94	7.25	8.09	5.70	3.88	4.71	7.04	4.57	5.63	6.26	5.12	5.66
7	9.00	7.72	8.49	5.34	3.85	4.70	5.71	4.24	4.89	6.75	6.10	6.50
8	9.07	8.51	8.81	5.99	4.48	5.24	5.82	4.65	5.14	7.04	5.73	6.26
9	9.41	8.39	8.82	6.59	3.95	5.06	5.68	4.41	5.18	6.27	5.20	5.70
10	8.78	8.10	8.38	5.39	3.68	4.30	5.92	5.04	5.40	6.21	4.78	5.48
11	8.43	6.84	7.34	5.65	4.01	5.11	6.27	5.14	5.84	5.89	4.51	5.20
12	7.28	6.23	6.66	6.12	4.83	5.51	6.90	5.33	6.09	6.15	4.49	5.45
13	8.09	6.23	7.10	6.87	5.43	6.39	6.47	4.95	5.67	7.16	5.30	6.26
14	8.42	7.74	8.09	6.25	5.11	5.70	6.13	4.55	5.32	7.62	6.45	7.05
15	8.48	7.52	7.97	6.85	5.72	6.31	6.98	4.69	5.96	7.87	6.77	7.24
16	9.38	8.25	8.77	6.47	4.88	5.76	7.71	6.09	6.99	7.91	6.60	7.22
17	9.42	8.13	8.77	6.10	4.33	5.12	7.78	6.43	7.08	7.82	5.95	6.77
18	8.96	6.81	7.70	7.32	4.49	6.07	7.73	5.90	6.82	7.25	5.25	6.13
19	6.89	5.80	6.32	7.50	6.62	7.04	7.83	5.51	6.48	7.72	5.96	6.57
20	6.62	5.35	6.15	7.49	6.26	6.68	7.82	5.01	5.99	7.76	6.27	6.91
21	6.73	5.05	5.93	7.11	5.92	6.41	6.42	4.25	5.14	6.95	5.51	6.19
22	7.04	5.35	6.24	6.72	4.98	5.58	6.48	5.18	5.74	6.80	5.39	6.04
23	7.26	6.44	6.72	6.25	4.12	5.01	6.88	5.82	6.48	7.25	5.41	6.64
24	7.07	6.17	6.51	5.71	4.19	4.83	7.30	5.54	6.27	7.74	6.39	7.00
25	7.29	6.01	6.40	6.17	4.89	5.43	6.97	5.41	6.15	7.27	6.05	6.71
26	7.25	5.07	5.77	6.40	4.73	5.54	7.00	5.18	5.97	7.70	6.45	7.10
27	6.61	5.30	6.00	6.37	4.74	5.57	6.44	4.74	5.59	7.78	6.83	7.35
28	7.71	5.18	6.30	6.60	4.84	5.81	6.42	4.86	5.66	8.02	6.85	7.37
29	7.39	6.05	6.60	6.88	5.38	6.25	6.77	5.19	6.05	8.01	7.08	7.53
30	8.26	6.61	7.44	6.72	4.89	5.92	7.65	5.58	6.50	7.91	7.06	7.44
31	---	---	---	6.58	4.84	5.80	6.77	5.31	6.03	---	---	---
MONTH	10.91	5.05	7.59	7.50	3.68	5.62	7.86	4.24	6.07	8.02	4.29	6.38
YEAR	12.03	3.68	7.44									

14134000 SALMON RIVER NEAR GOVERNMENT CAMP, OR

LOCATION.--Lat 45°15'55", long 121°43'00", in SE¼NW¼ sec.31, T.3 S., R.9 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on right bank near lower end of Red Top Meadows and 3.0 mi (4.8 km) southeast of Government Camp.

DRAINAGE AREA.--8.0 mi² (20.7 km²), revised.

PERIOD OF RECORD.--May 1910 to May 1912, April 1926 to current year. Published as "near Rowe" 1910-12.

REVISED RECORDS.--WSP 769: Drainage area. WSP 1398: 1911-12, 1926-27, 1933(M), 1949.

GAGE.--Water-stage recorder. Datum of gage is 3,445.53 ft (1,050.198 m) above mean sea level. Prior to Nov. 21, 1910, nonrecording gage at site 0.2 mi (0.3 km) upstream at different datum. Nov. 21, 1910, to May 31, 1912, and Apr. 21, 1926, to Sept. 30, 1933, at site 75 ft (23 m) upstream from former site at different datums. Oct. 1, 1933, to Sept. 30, 1960, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records excellent. No regulation or diversion above station.

AVERAGE DISCHARGE.--52 years (water years 1911, 1927-77), 44.8 ft³/s (1.269 m³/s), 69.93 in/yr (1,776 mm/yr), 32,460 acre-ft/yr (40.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,300 ft³/s (36.8 m³/s) Dec. 23, 1964, gage height, 4.75 ft (1.448 m), from rating curve extended above 310 ft³/s (8.78 m³/s), on basis of slope-area measurement of peak flow; minimum, 10 ft³/s (0.28 m³/s) Nov. 27, 1952.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 90 ft³/s (2.55 m³/s) Aug. 30, gage height, 1.74 ft (0.530 m), no peak above base of 150 ft³/s (4.25 m³/s); minimum, 16 ft³/s (0.45 m³/s) Feb. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	31	19	18	18	22	28	58	53	30	23	24
2	27	25	19	19	17	20	25	77	44	30	23	23
3	24	23	19	19	17	20	26	75	47	29	24	28
4	22	22	19	19	17	19	29	59	59	29	23	33
5	22	21	19	18	17	20	33	53	53	28	23	27
6	22	20	19	18	17	21	39	47	52	27	22	24
7	23	20	19	19	17	22	50	45	51	26	21	23
8	23	20	22	18	17	23	54	45	47	27	21	23
9	22	20	20	20	17	22	42	47	44	28	22	22
10	23	19	20	17	20	20	36	61	42	27	22	22
11	23	19	19	17	20	20	39	52	40	29	22	22
12	22	19	19	20	23	20	39	46	39	29	22	21
13	21	19	19	21	24	20	40	46	38	26	22	21
14	21	20	19	19	20	19	35	50	37	27	21	21
15	20	28	20	24	19	19	36	47	35	27	21	20
16	20	26	20	23	20	19	36	47	35	27	21	20
17	20	29	20	21	21	19	32	57	35	29	20	20
18	19	26	21	25	20	19	30	53	35	30	21	21
19	19	22	19	24	19	19	30	50	34	26	21	23
20	19	21	18	22	20	19	32	49	35	26	21	28
21	20	20	18	21	20	20	32	58	37	27	22	36
22	19	20	18	20	19	22	38	50	38	26	20	25
23	19	19	19	19	18	23	47	53	34	26	20	29
24	24	20	18	19	18	20	61	48	32	26	23	34
25	46	21	21	18	18	20	67	45	34	27	26	30
26	27	19	29	18	18	21	61	49	33	26	32	24
27	22	18	29	18	23	31	57	49	34	26	20	23
28	21	18	22	17	28	25	58	47	33	25	35	26
29	21	19	21	17	---	23	62	44	33	23	38	32
30	20	19	19	17	---	22	64	43	30	24	50	37
31	34	---	18	17	---	24	---	47	---	24	28	---
TOTAL	709	643	621	602	542	653	1258	1597	1193	837	750	762
MEAN	22.9	21.4	20.0	19.4	19.4	21.1	41.9	51.5	39.8	27.0	24.2	25.4
MAX	46	31	29	25	28	31	67	77	59	30	50	37
MIN	19	18	18	17	17	19	25	43	30	23	20	20
CFSM	2.86	2.68	2.50	2.43	2.43	2.64	5.24	6.44	4.98	3.38	3.03	3.18
IN.	3.30	2.99	2.89	2.80	2.52	3.04	5.85	7.43	5.55	3.89	3.49	3.54
AC-FT	1410	1280	1230	1190	1080	1300	2500	3170	2370	1660	1490	1510

CAL YR 1976 TOTAL 16966 MEAN 46.4 MAX 134 MIN 18 CFSM 5.80 IN 78.89 AC-FT 33650
WTR YR 1977 TOTAL 10167 MEAN 27.9 MAX 77 MIN 17 CFSM 3.49 IN 47.27 AC-FT 20170

14137000 SANDY RIVER NEAR MARMOT, OR

LOCATION.--Lat 45°23'30", long 122°07'40", in SE¼ sec.13, T.2 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, on right bank 0.7 mi (1.1 km) southwest of Marmot, 0.8 mi (1.3 km) upstream from Sandy River Dam of Portland General Electric Co., 6.6 mi (10.6 km) downstream from Salmon River, and at mile 30.9 (49.7 km).

DRAINAGE AREA.--262 mi^2 (679 km^2).

PERIOD OF RECORD.--August 1911 to current year. Published as "at Marmot" October 1912 to September 1913. Records for January 1916 to June 1919, published as "below dam, near Marmot," obtained by combining records for Sandy River below dam, near Marmot, with records for Sandy River Canal near Marmot.

REVISED RECORDS.--WSP 594: Drainage area. WSP 1288: 1912(M), 1915, 1922, 1924, 1934(M). WSP 1318: 1932(M).

GAGE.--Water-stage recorder. Altitude of gage is 730 ft (223 m), from river-profile map. Aug. 15, 1911, to Dec. 20, 1915, and July 2, 1919, to Oct. 19, 1933, nonrecording gage at site 1.0 mi (1.6 km) upstream at different datum. Oct. 20, 1933, to Sept. 30, 1958, water-stage recorder at site 0.6 mi (1.0 km) upstream at different datum.

REMARKS.--Records excellent. No regulation or diversion above station.

AVERAGE DISCHARGE.--66 years, 1,373 ft^3/s (38.88 m^3/s), 71.17 in/yr (1,808 mm/yr), 994,700 acre-ft/yr (1.23 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,400 ft^3/s (1,740 m^3/s) Dec. 22, 1964, gage height, 17.05 ft (5.197 m), from rating curve extended above 7,000 ft^3/s (198 m^3/s); minimum, 195 ft^3/s (5.52 m^3/s) Nov. 27, 28, 1952.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,280 ft^3/s (92.9 m^3/s) Apr. 7, gage height, 9.40 ft (2.865 m), no peak above base of 7,700 ft^3/s (218 m^3/s); minimum daily, 260 ft^3/s (7.36 m^3/s) Oct. 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	344	842	300	465	406	1570	2560	1550	1510	566	360	436
2	366	580	290	459	383	1270	2140	1870	1360	533	350	388
3	383	483	290	424	360	1350	1710	2170	1290	514	355	483
4	334	436	290	424	355	1100	1660	2010	1890	527	350	630
5	318	400	280	388	344	1020	1950	1810	1800	495	339	698
6	313	371	280	383	339	1090	2400	1630	1720	471	339	514
7	308	355	320	383	334	1570	2900	1490	1610	447	330	442
8	318	344	460	383	329	1870	3050	1410	1420	459	320	400
9	313	334	580	377	329	1780	2400	1370	1230	471	310	377
10	324	324	480	377	360	1410	1850	1650	1130	453	334	360
11	334	318	440	371	394	1180	1650	1900	1050	459	334	350
12	313	313	400	430	400	1160	1540	1610	988	471	339	339
13	302	302	380	908	514	1040	1710	1440	934	436	329	334
14	292	313	360	810	424	926	1610	1430	900	436	324	329
15	287	400	366	757	394	850	1500	1440	842	436	318	324
16	282	477	383	818	377	795	1590	1450	802	436	329	297
17	277	495	371	757	377	742	1420	2260	779	453	324	282
18	272	691	394	772	371	779	1300	2140	772	489	318	272
19	267	514	360	810	355	1040	1170	1740	749	436	324	339
20	267	453	339	727	355	1050	1130	1550	720	412	324	507
21	267	418	329	664	394	943	1110	1580	734	442	329	818
22	260	394	324	608	489	997	1150	1490	720	430	313	670
23	260	371	377	546	477	1180	1440	1540	677	418	292	630
24	320	360	383	507	436	1080	1820	1460	643	424	383	1200
25	750	380	406	483	447	979	2130	1340	657	424	377	961
26	500	365	934	459	527	908	1690	1480	615	418	637	764
27	420	350	1110	442	900	2060	1670	1640	668	412	360	643
28	380	330	818	430	1820	1670	1630	1670	587	400	424	637
29	350	320	670	406	---	1360	1630	1510	601	350	637	713
30	329	310	580	388	---	1210	1640	1400	560	360	1010	1340
31	430	---	507	400	---	1300	---	1380	---	366	580	---
TOTAL	10480	12343	13801	16556	12990	37279	53350	50410	29898	13844	11992	14477
MEAN	338	411	445	534	464	1203	1778	1626	997	447	387	549
MAX	750	842	1110	908	1820	2060	3050	2260	1890	566	1010	1340
MIN	260	302	280	371	329	742	1110	1340	560	350	292	272
CFSM	1.29	1.57	1.70	2.04	1.77	4.59	6.79	6.21	3.81	1.71	1.48	2.10
IN.	1.49	1.75	1.96	2.35	1.84	5.29	7.57	7.16	4.25	1.97	1.70	2.34
AC-FT	20790	24480	27370	32840	25770	73940	105800	99990	59300	27460	23790	32680

CAL YR 1976 TOTAL 442098 MEAN 1208 MAX 9570 MIN 260 CFSM 4.61 IN 62.77 AC-FT 876900
WTR YR 1977 TOTAL 279420 MEAN 766 MAX 3050 MIN 260 CFSM 2.92 IN 39.67 AC-FT 554200

14138800 BLAZED ALDER CREEK NEAR RHODODENDRON, OR

LOCATION.--Lat 45°27'10", long 121°53'25", in NW¼SE¼ sec.25, T.1 S., R.7 E., Clackamas County, Hydrologic Unit Unit 17080001, in Mount Hood National Forest, on right bank 600 ft (183 m) below the confluence of Bedrock and Hickman Creeks and 8.6 mi (13.8 km) north of Rhododendron.

DRAINAGE AREA.--8.17 mi² (21.16 km²).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,540 ft (774 m), from topographic map.

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--14 years, 61.2 ft³/s (1.733 m³/s), 101.73 in/yr (2,584 mm/yr), 44,340 acre-ft/yr (54.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,610 ft³/s (73.9 m³/s) Dec. 22, 1964, gage height, 8.25 ft (2.515 m), from rating curve extended above 330 ft³/s (9.35 m³/s), on basis of slope-area measurement of peak flow; minimum, 1.5 ft³/s (0.042 m³/s) Sept. 5-10, 28, 29, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 219 ft³/s (6.20 m³/s) Mar. 27, gage height, 2.93 ft (0.893 m), no peak above base of 500 ft³/s (14.2 m³/s); minimum, 2.0 ft³/s (0.057 m³/s) Oct. 18, Aug. 14-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	43	8.3	22	13	74	100	77	61	6.3	3.0	25
2	3.3	27	7.8	25	12	49	75	121	53	6.3	3.0	18
3	4.0	20	7.3	20	13	39	58	152	53	6.3	2.8	31
4	3.0	17	7.3	17	10	32	58	119	117	6.8	2.8	44
5	2.8	14	6.8	43	9.4	31	79	91	87	6.3	2.8	44
6	2.8	13	6.8	53	9.4	33	125	71	69	6.3	2.8	30
7	2.5	11	7.3	53	8.8	94	181	58	56	5.9	2.5	22
8	2.5	10	20	53	8.3	109	199	55	49	5.5	2.5	18
9	2.5	8.3	22	53	8.3	86	126	56	39	5.1	2.5	15
10	2.8	7.8	17	55	14	51	84	96	31	5.1	2.5	13
11	3.0	7.3	13	47	16	42	77	100	26	5.1	2.2	11
12	2.8	6.8	13	40	23	39	71	71	22	5.1	2.2	10
13	2.5	6.3	13	63	32	32	94	58	21	5.1	2.2	8.8
14	2.5	6.8	13	46	21	28	79	58	18	4.7	2.2	8.3
15	2.5	17	14	46	17	25	71	63	17	4.7	2.2	8.3
16	2.2	17	15	49	16	23	75	61	15	4.3	2.2	7.8
17	2.2	28	15	44	16	21	59	119	13	4.7	2.0	7.3
18	2.2	35	17	59	14	24	51	96	13	5.9	2.0	8.3
19	2.2	22	14	58	13	46	47	69	11	4.7	2.0	15
20	2.2	17	13	46	13	35	44	56	11	4.3	2.0	39
21	2.2	15	11	36	16	33	44	71	12	4.0	2.0	44
22	2.2	13	11	30	22	37	53	58	11	4.0	2.5	51
23	2.2	11	13	25	17	42	86	58	9.4	3.7	2.0	61
24	6.8	11	12	21	15	39	132	59	8.8	3.7	4.7	140
25	64	17	23	19	15	35	144	53	8.3	3.7	13	96
26	32	13	93	17	17	47	117	72	7.8	3.7	27	59
27	17	11	121	16	80	218	93	91	7.8	3.3	8.3	43
28	12	10	63	14	154	96	91	89	7.3	3.7	24	36
29	10	9.4	44	13	---	59	91	74	6.8	3.3	33	51
30	8.8	8.8	33	13	---	47	82	61	6.8	3.3	119	59
31	27	---	26	13	---	51	---	58	---	3.0	42	---
TOTAL	237.2	453.5	700.6	1109	623.2	1617	2686	2391	868.0	147.9	325.9	1063.8
MEAN	7.65	15.1	22.6	35.8	22.3	52.2	89.5	77.1	28.9	4.77	10.5	35.5
MAX	64	43	121	63	154	218	199	152	117	6.8	119	140
MIN	2.2	6.3	6.8	13	8.3	21	44	53	6.8	3.0	2.0	7.3
CFSM	.94	1.85	2.77	4.38	2.73	6.39	11.0	9.44	3.54	.58	1.29	4.35
IN.	1.08	2.06	3.19	5.05	2.84	7.36	12.23	10.89	3.95	.67	1.48	4.84
AC-FT	470	900	1390	2200	1240	3210	5330	4740	1720	293	646	2110

CAL YR 1976 TOTAL 18816.7 MEAN 51.4 MAX 522 MIN 2.2 CFSM 6.29 IN 85.68 AC-FT 37320
WTR YR 1977 TOTAL 12223.1 MEAN 33.5 MAX 218 MIN 2.0 CFSM 4.10 IN 55.65 AC-FT 24240

14138850 BULL RUN RIVER NEAR MULTNOMAH FALLS, OR

LOCATION.--Lat 45°29'50", long 122°00'50", near center of sec.12, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, in Mount Hood National Forest, on right bank 1.2 mi (1.9 km) above North Fork, 7.0 mi (11.3 km) southeast of Multnomah Falls, and at mile 14.8 (23.8 km).

DRAINAGE AREA.--47.9 mi^2 (124.1 km^2).

PERIOD OF RECORD.--August 1966 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 1,080 ft (329 m), from topographic map.

REMARKS.--Records good. Water stored since 1915 in Bull Run Lake, usable capacity, 12,270 acre-ft (15.1 hm^3). No diversion above station.

AVERAGE DISCHARGE.--11 years, 440 ft^3/s (12.46 m^3/s), 124.74 in/yr (3,168 mm/yr), 318,800 acre-ft/yr (393 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,610 ft^3/s (244 m^3/s) Jan. 20, 1972, gage height, 13.22 ft (4.029 m); minimum, 33 ft^3/s (0.93 m^3/s) Sept. 27, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,200 ft^3/s (62.3 m^3/s) Mar. 27, gage height, 7.44 ft (2.268 m), no peak above base of 3,800 ft^3/s (108 m^3/s); minimum, 34 ft^3/s (0.96 m^3/s) Aug. 16-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	420	81	179	129	666	875	386	373	70	43	232
2	82	260	78	165	108	442	634	661	326	68	43	177
3	82	197	76	146	97	380	486	892	323	66	42	323
4	70	161	72	138	92	320	482	752	771	64	41	490
5	66	137	70	113	89	303	599	626	574	62	41	463
6	61	116	69	111	86	335	817	494	460	58	41	300
7	58	103	78	103	82	865	1060	407	383	56	41	225
8	55	94	199	97	80	953	1120	370	317	54	41	180
9	52	87	268	90	78	757	787	354	270	54	40	149
10	57	81	218	94	110	467	545	545	236	52	40	128
11	59	76	180	119	123	364	494	630	214	52	37	111
12	52	72	161	312	165	370	449	463	195	52	36	99
13	49	69	146	570	243	303	561	386	179	50	35	90
14	47	69	135	393	177	255	482	383	163	50	35	83
15	46	131	133	386	151	229	431	442	151	50	35	81
16	44	189	133	400	138	216	449	452	138	50	35	76
17	43	270	129	345	137	199	373	838	128	55	34	73
18	42	326	146	367	124	255	326	648	121	70	34	80
19	41	223	124	364	114	463	283	475	114	60	34	114
20	40	182	111	300	114	354	270	393	110	55	34	300
21	40	155	103	250	135	320	272	449	114	52	34	671
22	40	135	97	218	216	354	312	383	103	50	34	403
23	40	119	118	191	193	410	434	386	96	50	34	525
24	48	111	114	167	173	383	595	417	92	48	54	1030
25	400	146	187	151	193	332	652	354	86	48	129	634
26	236	116	699	138	239	373	557	460	82	48	386	413
27	140	102	822	129	843	1470	467	529	80	47	124	303
28	110	96	445	119	1270	675	445	521	76	47	227	265
29	96	90	317	110	---	456	442	434	75	47	335	370
30	85	86	250	103	---	380	403	376	72	45	953	438
31	236	---	210	111	---	434	---	360	---	44	367	---
TOTAL	2588	4419	5969	6479	5699	14083	16102	15266	6422	1674	3439	8826
MEAN	83.5	147	193	209	204	454	537	492	214	54.0	111	294
MAX	400	420	822	570	1270	1470	1120	892	771	70	953	1030
MIN	40	69	69	90	78	199	270	354	72	44	34	73
CFSM	1.74	3.07	4.03	4.36	4.26	9.48	11.2	10.3	4.47	1.13	2.32	6.14
IN.	2.01	3.43	4.64	5.03	4.43	10.94	12.50	11.86	4.99	1.30	2.67	6.85
AC-FT	5130	8770	11840	12850	11300	27930	31940	30280	12740	3320	6820	17510

CAL YR 1976 TOTAL 127468 MEAN 348 MAX 3260 MIN 40 CFSM 7.27 IN 98.99 AC-FT 252800
WTR YR 1977 TOTAL 90966 MEAN 249 MAX 1470 MIN 34 CFSM 5.20 IN 70.64 AC-FT 180400

14138870 FIR CREEK NEAR BRIGHTWOOD, OR

LOCATION.--Lat 45°28'56", long 122°01'36", in NE¼SE¼ sec.14, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, on right bank, 6.4 mi (10.3 km) north of Brightwood and 0.6 mi (1.0 km) above Bull Run Reservoir Number One.

DRAINAGE AREA.--5.46 mi^2 (14.1 km^2).

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,440 ft (439 m), from topographic map.

REMARKS.--Records good. No regulation or diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 659 ft^3/s (18.7 m^3/s) Dec. 1, 1975, gage height 4.81 ft (1.466 m); minimum, 1.9 ft^3/s (0.054 m^3/s) Aug. 17-23, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 161 ft^3/s (4.56 m^3/s) Mar. 27, gage height, 3.55 ft (1.082 m), no peak above base of 400 ft^3/s (11.3 m^3/s); minimum, 1.9 ft^3/s (0.054 m^3/s) Aug. 17-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	35	6.0	14	12	74	97	34	32	6.0	3.4	16
2	4.6	21	5.8	13	9.9	51	79	67	28	5.8	3.2	12
3	4.8	15	5.6	12	9.1	45	59	80	28	5.8	3.2	24
4	3.8	13	5.4	11	8.5	36	56	67	72	5.6	3.1	42
5	3.6	11	5.2	10	8.0	33	66	60	56	5.6	2.9	43
6	3.5	9.3	5.0	9.2	8.0	40	81	53	45	5.4	2.9	25
7	3.2	8.3	5.2	9.0	7.5	93	97	44	35	5.2	2.8	18
8	3.2	7.3	11	8.4	7.3	101	103	40	28	5.0	2.7	15
9	3.1	6.8	21	8.0	7.1	84	76	35	24	4.7	2.7	13
10	4.1	6.4	17	7.8	8.8	56	58	66	21	4.6	2.5	11
11	4.1	6.0	14	9.0	9.1	40	53	78	19	4.6	2.4	9.9
12	3.5	5.6	13	25	12	42	47	45	17	4.6	2.3	9.1
13	3.2	5.2	12	64	18	34	58	41	16	4.5	2.3	8.3
14	3.1	5.6	11	45	12	27	48	45	14	4.5	2.2	7.8
15	2.9	10	11	38	11	24	43	52	13	4.3	2.2	7.3
16	2.8	11	10	35	11	23	46	110	12	4.5	2.1	7.1
17	2.8	21	10	31	10	21	36	80	11	5.0	2.0	6.6
18	2.7	22	12	30	9.6	24	31	69	11	7.3	1.9	7.8
19	2.7	16	10	28	8.8	45	27	57	10	5.0	1.9	12
20	2.5	13	9.4	24	8.8	39	26	44	9.9	4.6	1.9	31
21	2.5	12	8.4	21	9.9	33	26	46	10	4.3	1.9	63
22	2.5	11	8.4	18	14	37	29	37	9.6	4.1	2.0	37
23	2.5	9.6	12	16	13	45	39	42	8.8	4.0	2.0	50
24	3.5	8.8	12	14	13	42	51	49	8.3	4.0	5.0	104
25	29	9.9	25	13	15	35	56	39	7.8	3.8	12	66
26	17	8.3	56	12	20	35	46	53	7.3	3.8	27	40
27	11	7.5	56	11	75	118	38	54	7.1	3.6	8.8	29
28	8.8	7.1	37	11	118	70	36	51	6.8	3.8	13	26
29	8.0	6.6	25	10	---	49	36	40	6.6	3.8	24	41
30	7.1	6.4	20	9.6	---	40	33	33	6.0	3.6	66	49
31	21	---	16	10	---	44	---	31	---	3.5	25	---
TOTAL	180.6	335.7	475.4	577.0	474.4	1480	1577	1642	580.2	144.9	237.3	830.9
MEAN	5.83	11.2	15.3	18.6	16.9	47.7	52.6	53.0	19.3	4.67	7.65	27.7
MAX	29	35	56	64	118	118	103	110	72	7.3	66	104
MIN	2.5	5.2	5.0	7.8	7.1	21	26	31	6.0	3.5	1.9	6.6
CFSM	1.07	2.05	2.80	3.41	3.10	8.74	9.63	9.71	3.54	.86	1.40	5.07
IN.	1.23	2.29	3.24	3.93	3.23	10.08	10.74	11.19	3.95	.99	1.62	5.66
AC-FT	358	666	943	1140	941	2940	3130	3260	1150	287	471	1650

CAL YR 1976 TOTAL 11311.2 MEAN 30.9 MAX 368 MIN 2.5 CFSM 5.66 IN 77.07 AC-FT 22440
WTR YR 1977 TOTAL 8535.4 MEAN 23.4 MAX 118 MIN 1.9 CFSM 4.29 IN 58.14 AC-FT 16930

14138900 NORTH FORK BULL RUN RIVER NEAR MULTNOMAH FALLS, OR

LOCATION.--Lat 45°29'40", long 122°02'05", in NE¼SW¼ sec.11, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, Mount Hood National Forest, on right bank 6.9 mi (11.1 km) southeast of Multnomah Falls and at mile 0.1 (0.2 km).

DRAINAGE AREA.--8.32 mi^2 (21.55 km^2).

PERIOD OF RECORD.--August 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,080 ft (329 m), from topographic map.

REMARKS.--Records excellent. Regulation at times since 1958 by North Fork dam, capacity, about 1,030 acre-ft (1.27 hm^3). No diversion above station.

AVERAGE DISCHARGE.--12 years, 80.9 ft^3/s (2.291 m^3/s), 132.05 in/yr (3,354 mm/yr), 58,610 acre-ft/yr (72.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,700 ft^3/s (275 m^3/s), probably affected by surge from release of water temporarily impounded by landslide upstream from station, Jan. 20, 1972, gage height, 9.89 ft (3.014 m), from floodmark, from rating curve extended above 850 ft^3/s (24.1 m^3/s) on basis of estimate of peak flow from slope-area survey; minimum, 9.4 ft^3/s (0.27 m^3/s) Aug. 18, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 340 ft^3/s (9.63 m^3/s) Feb. 28, gage height, 5.10 ft (1.554 m), no peak above base of 700 ft^3/s (19.8 m^3/s); minimum, 9.4 ft^3/s (0.27 m^3/s) Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	66	17	31	31	125	177	64	63	16	11	33
2	14	43	17	31	23	93	117	189	53	16	11	27
3	14	32	17	28	21	87	89	243	74	16	11	64
4	13	27	16	26	21	70	87	210	134	16	11	100
5	13	24	16	23	20	64	102	156	84	16	10	75
6	12	22	16	23	20	67	123	112	67	16	10	50
7	12	21	21	22	19	153	143	87	57	14	10	37
8	12	20	45	21	18	153	174	79	51	14	10	31
9	12	19	45	20	18	117	123	69	45	14	10	27
10	14	18	37	20	30	84	93	104	40	14	10	24
11	14	17	31	28	25	70	91	107	36	14	9.9	22
12	13	17	27	74	35	74	80	80	33	14	9.9	20
13	13	16	25	97	37	61	97	69	31	14	9.9	19
14	13	18	23	66	28	53	79	70	28	14	9.9	19
15	13	34	24	72	25	49	77	89	26	13	9.9	18
16	12	36	23	64	24	45	79	86	25	13	9.7	18
17	12	63	23	53	24	42	63	146	23	15	9.7	18
18	12	53	25	56	22	53	56	102	22	18	9.7	20
19	12	37	21	47	21	87	53	77	22	14	9.7	31
20	12	31	20	41	23	69	53	67	22	13	9.7	60
21	12	27	19	35	27	61	55	77	23	13	9.7	97
22	12	25	19	32	38	64	61	60	21	12	9.7	55
23	12	23	22	29	34	72	70	69	20	12	9.9	137
24	17	22	21	27	31	69	80	67	18	12	14	189
25	87	29	47	25	34	59	89	60	18	12	42	107
26	38	22	120	24	43	72	87	80	18	12	100	69
27	25	20	104	23	174	233	79	86	18	12	25	55
28	22	19	64	22	264	115	75	79	17	12	38	52
29	20	18	53	21	---	82	70	66	17	12	52	82
30	18	18	42	20	---	70	66	63	16	12	117	75
31	57	---	34	27	---	89	---	63	---	11	49	---
TOTAL	575	837	1034	1128	1130	2602	2688	2976	1122	426	668.3	1631
MEAN	18.5	27.9	33.4	36.4	40.4	83.9	89.6	96.0	37.4	13.7	21.6	54.4
MAX	87	66	120	97	264	233	177	243	134	18	117	189
MIN	12	16	16	20	18	42	53	60	16	11	9.7	18
CFSM	2.22	3.35	4.01	4.38	4.86	10.1	10.8	11.5	4.50	1.65	2.60	6.54
IN.	2.57	3.74	4.62	5.04	5.05	11.63	12.02	13.30	5.02	1.90	2.99	7.29
AC-FT	1140	1660	2050	2240	2240	5160	5330	5900	2230	845	1330	3240

CAL YR 1976 TOTAL 23542.0 MEAN 64.3 MAX 785 MIN 12 CFSM 7.73 IN 105.26 AC-FT 46700
WTR YR 1977 TOTAL 16817.3 MEAN 46.1 MAX 264 MIN 9.7 CFSM 5.54 IN 75.18 AC-FT 33360

14139000 BULL RUN RESERVOIR NUMBER ONE NEAR BULL RUN, OR

LOCATION.--Lat 45°28'50", long 122°04'50", in NW¼SW¼ sec.16, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, in Mount Hood National Forest, in control house of Bear Creek Dam on Bull Run River, 8.2 mi (13.2 km) northeast of Bull Run, and at mile 11.2 (18.0 km).

DRAINAGE AREA.--74.6 mi² (193.0 km²).

PERIOD OF RECORD.--October 1928 to current year. Prior to October 1937, published as Bull Run Reservoir. October 1937 to September 1967, published as Lake Ben Morrow. Prior to October 1975, monthend contents only.

REVISED RECORDS.--WSP 814: 1935(M). WSP 1935: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Portland Water Bureau). Prior to Oct. 9, 1930, nonrecording gage, Oct. 9, 1930, to Sept. 30, 1962, water-stage recorder at present site and datum, and Oct. 1, 1962, to Dec. 31, 1975, nonrecording gage at present site and datum.

REMARKS.--Lake is formed by concrete dam completed in March 1929 for water supply of city of Portland. Storage began about Apr. 29, 1929; first filling occurred May 15, 1929. Capacity, 26,930 acre-ft (33.2 hm³) at crest of spillway, elevation, 1,036.0 ft (315.77 m); capacity increased in October 1954 to 30,140 acre-ft (37.2 hm³) at elevation 1,044.0 ft (318.21 m) by installation of three gates 40 ft (12 m) wide and 8 ft (2.4 m) high. No dead storage. Water is used for power generation by Portland General Electric Co. and municipal supply for city of Portland.

COOPERATION.--Capacity table furnished by Portland Water Bureau.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 31,600 acre-ft (39.0 hm³) Mar. 31, 1931, elevation, 1,047.40 ft (319.248 m); minimum observed, 169 acre-ft (208,000 m³) Jan. 10, 1960, elevation, 887.5 ft (270.51 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 31,100 acre-ft (38.3 hm³) Feb. 27, elevation, 1,046.27 ft (318.903 m); minimum, 11,900 acre-ft (14.7 hm³) Oct. 25, elevation, 988.24 ft (301.216 m).

ELEVATION, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1018.81	997.02	1017.89	1036.83	1040.93	1043.96	1045.23	1045.24	1045.38	1042.82	1026.54	1021.82
2	1017.83	998.66	1017.77	1036.81	1040.07	1044.19	1044.25	1045.66	1045.20	1042.32	1025.50	1023.20
3	1016.81	999.62	1017.39	1036.79	1040.02	1045.21	1044.25	1044.54	1045.80	1042.13	1024.34	1025.84
4	1015.63	1000.21	1016.94	1036.73	1040.46	1044.90	1044.47	1044.20	1045.60	1042.14	1023.20	1029.67
5	1014.45	1000.61	1016.48	1036.68	1040.84	1044.26	1045.45	1044.43	1045.70	1042.14	1022.11	1033.11
6	1013.20	1000.87	1016.04	1036.67	1041.24	1043.93	1045.57	1044.79	1045.50	1042.14	1021.13	1035.26
7	1011.92	1001.00	1015.88	1036.67	1041.57	1046.00	1045.67	1045.28	1045.50	1041.79	1020.14	1036.88
8	1010.63	1001.11	1016.62	1036.66	1041.80	1044.77	1044.91	1045.45	1045.40	1041.33	1019.15	1038.08
9	1009.28	1001.21	1017.82	1036.65	1041.90	1044.30	1043.21	1045.20	1045.20	1040.83	1018.14	1038.12
10	1008.11	1001.39	1018.56	1036.65	1042.29	1043.97	1043.13	1045.49	1045.20	1040.33	1016.90	1038.37
11	1006.88	1001.58	1018.97	1036.72	1042.59	1043.51	1044.31	1045.24	1045.40	1039.76	1015.44	1038.43
12	1005.55	1001.70	1019.30	1037.52	1043.22	1043.24	1044.95	1044.90	1045.50	1039.25	1013.93	1039.17
13	1004.22	1001.83	1019.44	1037.78	1044.23	1042.45	1045.24	1044.76	1045.40	1038.73	1012.43	1039.03
14	1002.89	1002.08	1019.55	1037.44	1044.77	1042.20	1044.74	1044.74	1045.30	1038.20	1010.93	1038.83
15	1001.46	1002.94	1019.63	1037.52	1045.04	1043.10	1044.24	1045.21	1045.40	1037.46	1009.48	1038.82
16	1000.06	1004.14	1019.70	1037.44	1045.09	1044.36	1044.25	1045.43	1045.47	1036.62	1008.23	1038.92
17	998.87	1006.29	1019.81	1037.29	1045.09	1044.90	1043.75	1045.42	1045.46	1035.84	1006.96	1039.03
18	997.40	1008.90	1020.00	1037.41	1045.15	1045.00	1043.65	1045.47	1045.45	1035.71	1005.63	1039.19
19	995.67	1010.40	1020.07	1037.28	1045.26	1045.04	1044.19	1045.30	1045.41	1035.97	1004.32	1039.60
20	994.16	1011.40	1020.04	1037.17	1045.42	1043.49	1044.93	1045.15	1045.40	1035.80	1003.03	1041.13
21	992.66	1012.50	1019.90	1037.04	1045.43	1043.68	1045.28	1045.44	1045.38	1035.02	1001.69	1044.53
22	991.10	1013.30	1019.81	1036.96	1045.42	1044.89	1045.47	1045.29	1045.30	1034.08	1000.84	1042.67
23	989.60	1013.90	1019.89	1036.90	1045.08	1044.81	1045.80	1045.24	1045.22	1033.11	1000.38	1042.43
24	988.26	1014.51	1019.93	1036.80	1045.00	1044.47	1045.90	1045.38	1045.07	1032.16	1000.15	1042.92
25	990.95	1015.31	1020.68	1037.26	1045.30	1044.59	1045.57	1045.04	1044.92	1031.37	1000.83	1040.70
26	991.98	1015.92	1025.20	1037.57	1045.67	1045.42	1045.44	1045.46	1044.72	1030.88	1004.33	1040.34
27	992.33	1016.40	1030.17	1037.84	1045.79	1043.45	1045.45	1045.67	1044.51	1030.37	1005.37	1040.44
28	992.43	1016.78	1032.62	1038.48	1045.02	1042.94	1045.58	1045.54	1044.27	1029.88	1007.19	1040.31
29	992.42	1017.19	1034.22	1039.13	---	1043.50	1045.54	1045.20	1043.73	1029.12	1010.01	1040.98
30	992.23	1017.54	1035.67	1039.57	---	1044.46	1045.40	1045.25	1043.26	1028.28	1017.20	1041.81
31	993.75	---	1036.77	1040.20	---	1045.07	---	1045.39	---	1027.40	1020.03	---
MEAN	1001.66	1006.88	1021.38	1037.37	1043.56	1044.20	1044.86	1045.19	1045.17	1036.55	1012.11	1037.65
MAX	1018.81	1017.54	1036.77	1040.20	1045.79	1046.00	1045.90	1045.67	1045.80	1042.82	1026.54	1044.53
MIN	988.26	997.02	1015.88	1036.65	1040.02	1042.20	1043.13	1044.20	1043.26	1027.40	1000.15	1021.82
(†)	13,320	20,360	27,230	28,580	30,580	30,600	30,740	30,730	29,830	23,740	21,190	29,230
(‡)	-7,880	+7,040	+6,870	+1,350	+2,000	+20	-140	-10	-900	-6,090	-2,550	+8,040

CAL YR 1976 MEAN 970.13 MAX 1045.53 MIN 19.93 AC-FT‡ -570
WTR YR 1977 MEAN 1031.26 MAX 1046.00 MIN 988.26 AC-FT‡ +8,030

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14139700 CEDAR CREEK NEAR BRIGHTWOOD, OR

LOCATION.--Lat 45°27'30", long 122°01'50", in NE¼ sec.26, T.1 S., R.6 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on right bank 5.8 mi (9.3 km) north of Brightwood and at mile 2.5 (4.0 km).

DRAINAGE AREA.--7.93 mi^2 (20.54 km^2).

PERIOD OF RECORD.--July to November 1964, June 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,960 ft (597 m), from topographic map.

REMARKS.--Records excellent. No regulation or diversion above station.

AVERAGE DISCHARGE.--12 years, 69.4 ft^3/s (1.965 m^3/s), 118.85 in/yr (3,019 mm/yr), 50,280 acre-ft/yr (62.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,990 ft^3/s (56.4 m^3/s) Dec. 22, 1964, gage height, 7.20 ft (2.195 m), from rating curve extended above 320 ft^3/s (9.06 m^3/s) on basis of slope-area measurement of peak flow; minimum, 7.1 ft^3/s (0.20 m^3/s) Aug. 29 to Sept. 3, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 402 ft^3/s (11.4 m^3/s) Mar. 27, gage height, 3.30 ft (1.006 m), no peak above base of 500 ft^3/s (14.2 m^3/s); minimum, 7.8 ft^3/s (0.22 m^3/s) Oct. 22-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	62	14	28	21	119	167	49	56	16	12	39
2	12	38	13	27	17	81	119	103	48	16	12	30
3	13	30	13	24	16	79	90	135	48	16	12	62
4	11	26	12	22	15	60	84	121	111	16	12	84
5	10	23	12	20	14	58	99	109	74	16	12	74
6	9.9	20	12	18	14	65	126	86	61	16	12	50
7	9.5	19	13	17	13	167	157	70	52	15	12	39
8	9.5	17	39	17	13	159	175	62	44	15	11	32
9	9.1	16	44	15	12	130	130	56	40	15	11	28
10	10	15	34	16	15	79	92	93	36	15	11	24
11	10	15	28	18	16	62	84	103	32	15	11	22
12	9.5	14	25	54	22	64	71	73	30	15	11	20
13	9.1	13	23	117	31	49	95	61	28	15	10	18
14	8.8	14	21	73	20	41	74	62	26	15	10	17
15	8.8	28	20	68	18	37	70	74	24	14	9.9	16
16	8.4	28	19	62	17	35	79	79	24	14	9.9	16
17	8.4	49	19	53	17	32	61	164	22	15	9.9	15
18	8.1	48	23	53	16	49	52	117	22	19	9.5	18
19	8.1	33	19	49	15	92	46	83	20	16	9.5	30
20	8.1	27	17	41	15	67	42	67	20	15	9.5	78
21	8.1	24	16	35	19	61	43	71	22	14	9.5	113
22	8.1	22	15	30	36	61	48	57	20	14	9.5	62
23	8.1	20	22	27	28	73	60	65	19	14	9.5	90
24	12	19	22	24	26	71	74	74	19	14	15	162
25	88	24	35	22	31	61	78	58	18	14	30	101
26	38	20	101	20	39	68	68	84	17	14	70	67
27	24	17	101	19	137	259	58	97	17	13	23	50
28	20	16	62	18	233	115	57	86	17	13	31	46
29	19	15	48	17	---	79	54	70	16	13	40	67
30	17	15	38	16	---	67	50	60	16	13	152	71
31	41	---	32	18	---	81	---	56	---	12	58	---
TOTAL	474.6	727	912	1038	886	2521	2503	2545	999	457	664.7	1541
MEAN	15.3	24.2	29.4	33.5	31.6	81.3	83.4	82.1	33.3	14.7	21.4	51.4
MAX	88	62	101	117	233	259	175	164	111	19	152	162
MIN	8.1	13	12	15	12	32	42	49	16	12	9.5	15
CFSM	1.93	3.05	3.71	4.22	3.99	10.3	10.5	10.4	4.20	1.85	2.70	6.48
IN.	2.23	3.41	4.28	4.87	4.16	11.82	11.74	11.94	4.69	2.14	3.12	7.23
AC-FT	941	1440	1810	2060	1760	5000	4960	5050	1980	906	1320	3060

CAL YR 1976 TOTAL 19896.6 MEAN 54.4 MAX 490 MIN 8.1 CFSM 6.86 IN 93.34 AC-FT 39460
WTR YR 1977 TOTAL 15268.3 MEAN 41.8 MAX 259 MIN 8.1 CFSM 5.27 IN 71.62 AC-FT 30280

14139800 SOUTH FORK BULL RUN RIVER NEAR BULL RUN, OR

LOCATION.--Lat 45°26'38", long 122°06'20", in NE¼NE¼ sec.31, T.1 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on right bank 6.2 mi (10.0 km) northeast of Bull Run, and at mile 0.6 (1.0 km).

DRAINAGE AREA.--15.4 mi^2 (39.9 km^2).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 990 ft (302 m) from topographic map.

REMARKS.--Records good. No regulation or diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,350 ft^3/s (66.6 m^3/s) Jan. 25, 1975, gage height, 8.28 ft (2.524 m); minimum, 10 ft^3/s (0.28 m^3/s) Aug. 18, 19, 23, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 449 ft^3/s (12.7 m^3/s) Mar. 27, gage height, 4.81 ft (14.66 m), no peak above base of 1,600 ft^3/s (45.3 m^3/s); minimum, 10 ft^3/s (0.28 m^3/s) Aug. 18, 19, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	84	25	59	33	251	296	130	105	22	14	75
2	16	63	25	56	29	185	242	194	105	22	14	55
3	16	52	24	51	27	186	186	226	130	22	14	100
4	15	47	23	48	25	145	168	222	200	22	13	135
5	15	42	23	42	25	132	174	208	150	22	13	141
6	14	38	22	38	25	138	206	176	110	21	14	105
7	15	35	22	37	24	268	246	145	90	21	13	80
8	15	32	50	34	22	287	287	130	70	20	13	64
9	15	30	65	30	25	253	242	116	60	19	12	53
10	16	27	56	30	28	174	179	163	55	19	12	45
11	18	24	50	32	30	140	155	212	50	19	12	40
12	15	23	45	70	45	138	140	164	47	19	12	37
13	13	21	42	201	55	117	164	134	45	20	12	34
14	12	21	38	158	40	99	150	125	42	19	11	32
15	12	35	36	138	35	87	137	135	40	18	11	30
16	12	40	34	128	32	82	147	147	38	18	11	28
17	12	55	34	111	31	72	127	291	36	19	11	26
18	12	75	38	106	29	94	113	255	34	25	10	29
19	12	60	34	100	28	168	100	181	32	20	11	41
20	12	50	31	85	29	144	93	145	31	18	11	111
21	12	45	28	73	34	127	88	140	33	17	11	178
22	12	40	27	61	60	124	89	130	30	17	11	131
23	12	38	36	51	53	140	106	124	29	17	11	150
24	14	36	37	42	51	141	124	147	27	16	21	280
25	105	40	47	38	60	128	140	130	26	16	31	206
26	53	35	141	36	77	123	120	150	25	16	108	141
27	36	31	168	34	201	351	100	180	24	16	39	108
28	33	30	121	31	379	222	95	150	24	16	42	97
29	31	28	96	29	---	163	90	130	23	16	53	115
30	26	27	78	27	---	138	90	120	23	15	208	135
31	39	---	66	27	---	148	---	110	---	14	110	---
TOTAL	657	1204	1562	2003	1532	4965	4594	5010	1734	581	889	2802
MEAN	21.2	40.1	50.4	64.6	54.7	160	153	162	57.8	18.7	28.7	93.4
MAX	105	84	168	201	379	351	296	291	200	25	208	280
MIN	12	21	22	27	22	72	88	110	23	14	10	26
CFSM	1.38	2.60	3.27	4.20	3.55	10.4	9.94	10.5	3.75	1.21	1.86	6.07
IN.	1.59	2.91	3.77	4.84	3.70	11.99	11.10	12.10	4.19	1.40	2.15	6.77
AC-FT	1300	2390	3100	3970	3040	9850	9110	9940	3440	1150	1760	5560

CAL YR 1976 TOTAL 37679 MEAN 103 MAX 798 MIN 12 CFSM 6.69 IN 91.02 AC-FT 74740
WTR YR 1977 TOTAL 27533 MEAN 75.4 MAX 379 MIN 10 CFSM 4.90 IN 66.50 AC-FT 54610

14139900 BULL RUN RESERVOIR NUMBER TWO NEAR BULL RUN, OR

LOCATION.--Lat 45°26'55", long 122°08'45", on line between secs.25 and 26, T.1 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on south tower 0.3 mi (0.5 km) above headworks dam on Bull Run River, 4.4 mi (7.1 km) northeast of Bull Run, and at mile 6.5 (10.5 km).

DRAINAGE AREA.--102 mi^2 (264 km^2).

PERIOD OF RECORD.--December 1961 to current year. Prior to October 1975, monthend contents only.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Portland Water Bureau). Prior to Dec. 31, 1975, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earth and rockfill dam with concrete spillway built by Portland Water Bureau. Storage began about Dec. 20, 1961; first filling occurred Dec. 24, 1961. Capacity, 20,990 acre-ft (25.8 hm^3) at crest of spillway, elevation, 860.0 ft (262.13 m). Dead storage negligible. Water is used for power generation by Portland General Electric Co. and municipal supply for city of Portland.

COOPERATION.--Capacity table furnished by Portland Water Bureau.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 23,660 acre-ft (29.2 hm^3) Dec. 22, 1964, elevation, 866.00 ft (263.957 m); no contents at times during low-flow periods.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 21,870 acre-ft (27.0 hm^3) Mar. 27, elevation, 861.97 ft (262.728 m); minimum, 15,490 acre-ft (19.1 hm^3) Oct. 25, elevation, 846.36 ft (257.971 m).

ELEVATION, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	848.88	849.77	847.71	860.17	859.01	860.93	861.15	860.52	860.30	859.37	859.15	859.04
2	848.95	850.26	847.75	860.17	859.95	860.53	860.78	860.84	860.35	859.58	859.00	858.66
3	849.09	850.53	848.03	860.13	859.97	860.64	860.76	861.22	860.27	859.59	859.10	858.69
4	849.11	850.77	848.37	860.09	859.71	860.60	860.61	860.81	860.71	859.54	859.27	858.85
5	849.08	850.96	848.77	860.02	859.51	860.59	860.72	860.82	860.60	859.39	859.25	858.96
6	849.02	851.09	849.13	859.99	859.35	860.60	860.93	860.60	860.53	859.15	859.27	858.84
7	848.86	851.24	849.43	860.00	859.10	861.12	861.13	860.55	860.32	858.97	859.33	858.58
8	848.65	851.23	849.95	860.01	858.89	861.05	861.23	860.54	860.25	858.82	859.24	858.32
9	848.40	851.10	850.57	860.00	858.00	860.87	860.87	860.33	860.28	858.91	859.07	858.88
10	848.45	850.83	851.05	859.97	858.83	860.65	860.47	860.67	860.17	859.06	858.98	859.08
11	848.40	850.66	851.56	860.03	858.83	860.63	860.44	860.68	860.12	859.01	858.98	859.40
12	848.36	850.47	852.03	860.43	858.83	860.61	860.52	860.52	860.16	859.02	859.00	858.87
13	848.27	850.19	852.46	860.67	858.83	860.57	860.68	860.40	860.12	859.11	859.09	858.98
14	848.19	850.05	852.87	860.50	858.83	860.35	860.63	860.40	860.08	859.10	859.37	859.21
15	848.09	849.92	853.23	860.53	858.83	860.10	860.56	860.45	859.98	859.18	859.51	859.19
16	847.98	849.72	853.58	860.47	858.83	860.07	860.56	860.57	860.01	859.34	859.40	859.09
17	847.97	849.81	853.92	860.41	858.83	860.33	860.55	860.94	859.97	859.84	859.14	859.09
18	847.81	849.89	854.35	860.44	860.02	860.39	860.34	860.67	859.99	859.80	859.02	859.17
19	847.59	849.93	854.67	860.41	859.99	860.75	860.32	860.56	860.01	859.26	859.14	859.28
20	847.31	849.87	854.97	860.31	860.03	860.69	860.29	860.44	859.98	858.91	859.36	859.77
21	847.02	849.77	855.27	860.26	860.16	860.30	860.33	860.41	860.01	858.99	859.66	860.20
22	846.76	849.66	855.53	860.20	860.31	860.39	860.36	860.36	859.90	859.14	859.60	860.87
23	846.62	849.47	855.91	860.18	860.21	860.63	860.48	860.37	859.89	859.33	859.41	860.60
24	846.53	849.27	856.27	860.11	860.14	860.53	860.60	860.41	859.76	859.56	859.43	861.07
25	847.39	849.03	856.83	859.85	860.20	860.42	860.64	860.40	859.71	859.60	859.55	860.90
26	847.92	848.92	857.88	859.97	860.34	860.48	860.66	860.36	859.71	859.62	859.78	860.38
27	848.15	848.79	859.01	859.94	861.14	861.11	860.51	860.50	859.57	859.43	859.49	860.35
28	848.34	848.59	859.79	859.71	861.14	860.81	860.51	860.47	859.41	859.33	859.27	860.33
29	848.50	848.30	860.16	859.47	---	860.48	860.54	860.46	859.46	859.34	859.01	860.42
30	848.65	848.00	859.91	859.26	---	860.47	860.50	860.28	859.52	859.28	859.44	860.35
31	849.11	---	860.01	859.15	---	860.85	---	860.33	---	859.23	859.34	---
MEAN	848.18	849.94	853.58	860.09	859.56	860.60	860.62	860.55	860.04	859.28	859.28	859.51
MAX	849.11	851.24	860.16	860.67	861.14	861.12	861.23	861.22	860.71	859.84	859.78	861.07
MIN	846.53	848.00	847.71	859.15	858.00	860.07	860.29	860.28	859.41	858.82	858.98	858.32
(†)	16,480	16,080	21,000	20,630	21,500	21,370	21,220	21,150	20,790	20,660	20,710	21,150
(‡)	+70	-400	+4,920	-370	+870	-130	-150	-70	-360	-130	+50	+440

CAL YR 1976 MEAN 856.64 MAX 862.62 MIN 846.53 AC-FT‡ -400
WTR YR 1977 MEAN 857.59 MAX 861.23 MIN 846.53 AC-FT‡ +4,740

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14140001 BULL RUN RIVER NEAR BULL RUN, OR

LOCATION.--Lat 45°26'15", long 122°10'40", in NE¼SW¼ sec.34, T.1 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on left bank 1.8 mi (2.9 km) downstream from Bull Run Reservoir Number Two, 2.7 mi (4.3 km) northeast of Bull Run, and at mile 4.7 (7.6 km).

DRAINAGE AREA.--107 mi^2 (277 km^2).

PERIOD OF RECORD.--September 1907 to current year. Records for January 1895 to August 1907, published in WSP 370, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1288: 1910-11, 1913, 1920-23, 1926, 1929. WSP 1318: 1919(M). WSP 1568: 1952. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 567.90 ft (173.096 m) above mean sea level (levels by Portland Water Bureau). Prior to July 27, 1909, nonrecording gage at site 1.5 mi (2.4 km) upstream at different datum. July 27, 1909, to Sept. 30, 1959, water-stage recorder at site 2.5 mi (4.0 km) upstream at different datums.

REMARKS.--Records excellent. Water stored since 1915 in Bull Run Lake, capacity, 12,270 acre-ft (15.1 hm^3), and since 1958 in North Fork Reservoir, capacity, 1,030 acre-ft (1.27 hm^3). Flow regulated since 1929 by Bull Run Reservoir Number One (see station 14139000), and since 1961 by Bull Run Reservoir Number Two (see station 14139900). All records given herein include flow diverted from Bull Run Reservoir Number Two for city of Portland, and that used by Portland General Electric Co. for power generation, which returns to Bull Run River below station. Total diversion, 75,350 acre-ft (92.9 hm^3) of which 23,600 acre-ft (29.1 hm^3) was used for power generation and returned to Bull Run River.

COOPERATION.--Records of daily diversion furnished by Portland Water Bureau.

AVERAGE DISCHARGE.--70 years, 777 ft^3/s (22.00 m^3/s), 98.61 in/yr (2,505 mm/yr), 562,900 acre-ft/yr (694 hm^3/yr), adjusted for storage in Bull Run Reservoir Number One since 1929 and Bull Run Reservoir Number Two since 1961.

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 24,800 ft^3/s (702 m^3/s) Dec. 22, 1964, gage height, 17.21 ft (5.246 m), from rating curve extended above 8,800 ft^3/s (249 m^3/s) on basis of computation of peak flow over dam; minimum, 1.1 ft^3/s (0.03 m^3/s) Oct. 4, 1974.

Combined flow, maximum discharge, 25,100 ft^3/s (711 m^3/s) Dec. 22, 1964; minimum daily, 63 ft^3/s (1.78 m^3/s) Aug. 13-16, 1926.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 4,470 ft^3/s (127 m^3/s) Mar. 27, gage height, 9.41 ft (2.868 m); minimum recorded, 2.0 ft^3/s (0.057 m^3/s) Oct. 17-21, 23, 24.

Combined flow, maximum discharge, 4,610 ft^3/s (131 m^3/s) Mar. 27; minimum daily, 129 ft^3/s (4.02 m^3/s) Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	328	152	185	303	163	1980	1810	736	726	269	277	167
2	324	147	153	371	178	1340	1780	1090	694	226	288	170
3	297	142	184	334	220	1010	1180	1690	624	202	286	160
4	253	172	172	325	180	1080	1070	1640	1190	168	276	149
5	324	171	155	276	159	996	968	1130	1040	184	236	150
6	328	165	150	246	155	978	1350	1050	970	161	257	154
7	330	148	168	227	155	1230	1630	748	779	222	246	171
8	354	165	171	215	156	2160	2000	772	699	236	253	165
9	354	187	157	212	172	1790	1890	778	646	228	284	164
10	339	185	168	197	161	1290	1180	975	522	193	296	167
11	303	178	160	231	161	1040	723	1340	400	226	325	157
12	322	164	157	339	156	1060	722	1050	406	235	342	166
13	320	170	155	1100	174	998	947	853	382	208	326	189
14	321	156	170	971	152	806	1050	794	361	226	291	182
15	319	156	170	809	188	498	969	786	317	243	250	164
16	321	179	171	840	201	309	901	858	266	239	281	166
17	298	166	170	747	257	344	812	1540	265	219	293	158
18	307	165	165	676	214	626	731	1470	260	177	304	129
19	324	164	181	716	200	973	496	1040	240	185	268	144
20	330	164	146	622	187	1190	371	954	242	221	237	166
21	324	161	162	528	231	843	364	856	246	235	213	268
22	342	160	168	469	401	531	562	832	239	253	180	922
23	317	167	170	413	475	861	633	823	230	253	221	1110
24	233	161	155	374	420	946	896	833	244	233	180	1590
25	310	175	151	283	342	758	1080	809	241	250	189	1690
26	180	155	159	187	409	647	973	838	221	183	174	1040
27	161	142	155	220	1280	2740	818	920	232	223	169	647
28	174	147	173	167	2560	1580	740	1030	238	239	158	622
29	156	161	233	173	---	1000	771	926	262	210	154	642
30	165	165	268	167	---	714	754	785	232	227	169	719
31	162	---	172	163	---	854	---	685	---	240	158	---
TOTAL	8920	4890	5274	12901	9707	33172	30171	30631	13414	6814	7581	12488
MEAN	288	163	170	416	347	1070	1006	988	447	220	245	416
MAX	354	187	268	1100	2560	2740	2000	1690	1190	269	342	1690
MIN	156	142	146	163	152	309	364	685	221	161	154	129
AC-FT	17690	9700	10460	25590	19250	65800	59840	60760	26610	13520	15040	24770
MEAN†	161	274	361	433	399	1,068	1,001	987	426	119	204	559
CFSM†	1.50	2.56	3.37	4.05	3.73	9.98	9.36	9.22	3.98	1.11	1.91	5.22
IN.†	1.75	2.88	3.92	4.70	3.91	11.60	10.51	10.71	4.47	1.29	2.21	5.87
AC-FT†	9,900	16,310	22,210	26,610	22,130	65,690	59,550	60,680	25,350	7,300	12,540	33,250

CAL YR 1976 TOTAL 243,889 MEAN 666 MAX 6,300 MIN 139 AC-FT 483,800 MEAN† 613 CFSM† 5.73 IN.† 78.49 AC-FT† 444,800
WTR YR 1977 TOTAL 175,963 MEAN 482 MAX 2,740 MIN 129 AC-FT 349,000 MEAN† 500 CFSM† 4.67 IN.† 63.88 AC-FT† 362,000

† Adjusted for change in contents in Bull Run Reservoir Number One and Bull Run Reservoir Number Two.

14141500 LITTLE SANDY RIVER NEAR BULL RUN, OR

LOCATION.--Lat 45°24'55", long 122°10'20", in NW¼NW¼ sec.10, T.2 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on left bank 0.25 mi (0.40 km) upstream from Portland General Electric Co. dam and tunnel from Sandy River, 3.0 mi (4.8 km) east of Bull Run, and at mile 1.95 (3.14 km).

DRAINAGE AREA.--22.3 mi^2 (57.8 km^2).

PERIOD OF RECORD.--May to July 1911, October 1911 to March 1912, June 1912 to April 1913, July 1919 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1154: 1949. WSP 1248: Drainage area. WSP 1288: 1912, 1920-21(M), 1922-23, 1931, 1945. WSP 1318: 1920.

GAGE.--Water-stage recorder. Altitude of gage is 720 ft (220 m), from topographic map. May 23, 1911, to Apr. 29, 1913, nonrecording gage at site 0.85 mi (1.37 km) downstream at different datum, 0.5 mi (0.8 km) downstream from Sandy River diversion tunnel. July 1, 1919, to Sept. 30, 1931, water-stage recorder at site 0.1 mi (0.2 km) downstream at different datum. Oct. 1, 1931, to Nov. 3, 1967, at site 0.1 mi (0.2 km) downstream at datum 712 ft (217 m) above mean sea level. Nov. 4, 1967, to Aug. 8, 1971, water-stage recorder at site 0.1 mi (0.2 km) downstream at datum 697.44 ft (212.580 m) above mean sea level (Portland General Electric Co. bench mark).

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--58 years (water years 1920-77), 147 ft^3/s (4.163 m^3/s), 89.52 in/yr (2,274 mm/yr), 106,500 acre-ft/yr (131 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,320 ft^3/s (151 m^3/s) Nov. 20, 1921, gage height, 9.18 ft (2.798 m), site and datum then in use, from rating curve extended above 2,200 ft^3/s (62.3 m^3/s); minimum, 8 ft^3/s (0.23 m^3/s) Aug. 20, Sept. 16, 17, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 703 ft^3/s (19.9 m^3/s) May 17, gage height, 3.87 ft (1.180 m), no peak above base of 1,400 ft^3/s (39.6 m^3/s); minimum, 11 ft^3/s) Aug. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	126	30	54	50	251	440	139	157	32	16	40
2	26	77	28	53	42	193	323	303	130	28	16	32
3	35	59	27	48	38	208	241	323	126	27	16	67
4	21	50	26	47	35	168	221	248	259	28	15	105
5	20	44	26	39	33	147	238	205	196	28	15	113
6	19	39	26	54	33	144	284	184	162	26	15	70
7	18	36	27	60	32	231	331	162	135	25	14	53
8	18	33	55	38	31	299	392	154	111	24	14	42
9	17	31	83	47	30	269	284	142	98	24	14	37
10	20	29	63	45	33	193	193	280	85	24	14	32
11	21	28	54	41	39	154	196	291	77	23	13	29
12	19	27	50	69	42	157	184	202	70	23	12	26
13	18	26	47	215	70	139	238	162	64	24	12	24
14	18	27	44	152	45	122	190	162	59	22	12	22
15	17	50	44	142	39	109	173	181	55	22	12	22
16	17	58	47	142	37	102	199	202	51	21	12	22
17	17	96	44	117	37	90	152	600	49	22	12	21
18	16	117	55	120	35	103	135	401	47	30	12	22
19	16	75	44	120	33	205	120	251	43	23	12	33
20	16	60	39	96	32	170	120	193	43	21	12	83
21	16	53	37	82	36	147	122	199	47	20	12	205
22	16	47	35	67	49	154	132	165	43	19	13	113
23	16	42	44	59	47	173	173	181	39	18	13	130
24	19	39	43	53	47	157	211	196	37	18	23	284
25	144	53	58	49	48	137	224	154	35	18	36	179
26	89	43	173	45	53	124	190	196	34	19	96	120
27	49	38	187	42	196	365	160	211	32	18	33	89
28	39	35	117	40	415	234	157	211	31	18	30	82
29	36	33	92	38	---	179	160	170	30	21	43	113
30	31	32	74	37	---	152	144	147	29	18	137	168
31	54	---	62	39	---	184	---	142	---	16	59	---
TOTAL	901	1503	1781	2250	1657	5460	6327	6757	2374	700	765	2378
MEAN	29.1	50.1	57.5	72.6	59.2	176	211	218	79.1	22.6	24.7	79.3
MAX	144	126	187	215	415	365	440	600	259	32	137	284
MIN	16	26	26	37	30	90	120	139	29	16	12	21
CFSM	1.31	2.25	2.58	3.26	2.66	7.89	9.46	9.78	3.55	1.01	1.11	3.56
IN.	1.50	2.51	2.97	3.75	2.76	9.11	10.55	11.27	3.96	1.17	1.28	3.97
AC-FT	1790	2980	3530	4460	3290	10830	12550	13400	4710	1390	1520	4720

CAL YR 1976 TOTAL 45887 MEAN 125 MAX 1390 MIN 16 CFSM 5.61 IN 76.55 AC-FT 91020
WTR YR 1977 TOTAL 32853 MEAN 90.0 MAX 600 MIN 12 CFSM 4.04 IN 54.80 AC-FT 65160

14144700 COLUMBIA RIVER AT VANCOUVER, WA

LOCATION.--Lat 45°37'15", long 122°40'20", in NE¼NW¼ sec.34, T.2 N., R.1 E., Clark County, Hydrologic Unit 17080001, temperature recorder near right bank, in control house of Interstate Highway 5 bridge, at south edge of Vancouver, 5.0 mi (8.0 km) upstream from Willamette River, and at mile 106.5 (171.4 km).

DRAINAGE AREA.--241,000 mi^2 (624,200 km^2).

PERIOD OF RECORD.--Water years 1964-70, 1973 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1967 to September 1970, October 1972 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1963 to September 1967.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 23.5°C Aug. 12-15, 17, 18, 1977; minimum, 0.5°C Jan. 28, 1969.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 23.5°C Aug. 12-15, 17, 18; minimum, 2.0°C Jan. 10-12, 30, 31.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	18.0	13.5	13.0	8.0	7.0	4.5	4.5	3.0	2.5	5.5	5.0
2	18.5	18.0	13.5	13.0	7.5	7.0	4.5	4.0	3.0	3.0	5.0	5.0
3	18.0	17.5	13.5	13.0	7.5	7.0	4.0	3.5	3.0	2.5	5.5	5.0
4	18.0	16.5	13.0	12.5	7.5	7.0	4.0	4.0	3.0	2.5	5.5	5.0
5	17.5	16.0	12.5	12.5	7.5	6.5	4.5	4.0	2.5	2.5	5.5	5.0
6	18.0	16.0	12.5	11.5	7.5	6.5	3.5	3.5	3.0	2.5	5.5	5.5
7	17.5	16.5	12.5	11.5	7.0	6.5	3.5	3.0	3.0	2.5	5.5	5.5
8	18.0	16.5	12.5	12.0	7.5	6.5	3.0	2.5	2.5	2.5	5.5	5.5
9	17.5	16.5	12.5	12.0	7.5	7.0	3.0	2.5	3.0	2.5	5.5	5.5
10	18.0	17.0	12.5	11.5	7.5	6.5	2.5	2.0	3.5	3.0	5.5	5.0
11	18.0	17.0	12.0	11.5	7.0	7.0	2.5	2.0	3.5	3.0	5.5	5.5
12	17.5	16.0	12.0	11.5	7.0	6.5	2.5	2.0	4.0	3.5	5.5	5.5
13	17.5	16.0	11.5	11.5	7.0	6.5	3.0	2.5	4.0	3.5	6.0	5.5
14	17.5	16.5	11.5	11.0	6.5	6.0	3.5	3.0	4.5	4.0	5.5	5.5
15	17.0	15.5	11.5	10.5	6.5	5.5	3.5	3.5	4.5	4.0	5.5	5.0
16	16.5	15.0	11.5	11.5	6.5	5.5	4.0	3.5	4.5	4.0	6.0	5.5
17	16.0	15.5	12.0	11.5	6.5	6.0	3.5	3.5	4.5	4.0	6.0	5.5
18	16.0	14.5	11.5	11.5	6.5	5.5	3.5	3.5	4.5	4.0	6.0	5.5
19	14.5	14.0	11.5	11.0	6.5	6.0	3.5	3.5	5.0	4.5	6.0	5.5
20	14.0	13.5	11.0	10.5	6.5	5.5	3.5	3.5	5.0	4.5	6.0	5.5
21	14.0	13.0	10.5	10.0	6.0	5.0	3.5	3.5	5.0	4.5	6.0	5.5
22	14.5	13.5	11.0	10.0	6.0	5.0	3.5	3.0	5.0	4.5	6.5	6.0
23	14.5	13.5	10.5	9.5	5.5	5.0	3.0	3.0	4.5	4.5	7.0	6.5
24	14.5	14.0	10.0	9.5	6.0	5.5	3.0	2.5	4.5	4.5	7.0	6.5
25	14.5	14.0	10.0	9.5	5.5	5.5	2.5	2.5	4.5	4.5	7.0	6.5
26	14.0	13.5	10.0	9.5	6.0	5.5	2.5	2.5	5.0	4.5	7.0	6.5
27	14.0	13.5	9.5	8.5	6.0	5.0	2.5	2.5	5.0	5.0	7.0	6.5
28	13.5	12.5	8.5	8.0	6.0	5.5	2.5	2.5	5.5	5.0	6.5	6.0
29	13.5	13.5	9.0	7.5	6.0	5.5	2.5	2.5	---	---	6.5	6.0
30	13.5	13.0	8.0	7.5	5.5	5.0	2.5	2.0	---	---	7.0	6.5
31	13.0	12.5	---	---	5.0	4.5	2.5	2.0	---	---	7.0	6.5
MONTH	18.5	12.5	13.5	7.5	8.0	4.5	4.5	2.0	5.5	2.5	7.0	5.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	6.5	13.0	12.5	14.5	13.5	20.0	19.5	22.0	21.0	20.5	20.0
2	7.0	7.0	13.0	12.0	14.5	14.0	19.5	19.0	22.0	21.0	20.5	20.0
3	7.5	7.0	13.0	12.5	14.5	14.5	19.5	18.5	22.0	21.5	20.0	20.0
4	8.0	7.0	12.5	12.0	14.5	14.0	19.0	18.0	22.0	21.5	20.5	20.0
5	8.5	7.5	12.5	12.0	15.5	14.0	19.0	18.5	22.0	21.5	20.5	20.0
6	9.0	8.0	13.0	12.0	15.5	15.0	19.5	18.0	22.5	22.0	20.5	20.0
7	9.5	8.5	13.0	12.5	16.5	15.5	20.0	18.5	22.5	22.0	20.5	20.0
8	9.5	9.0	13.5	12.5	16.5	15.5	20.0	19.0	23.0	22.0	20.0	19.5
9	9.5	9.0	13.5	13.0	16.5	16.0	19.5	19.0	23.0	22.0	20.0	19.5
10	9.0	8.0	13.5	13.0	17.0	16.0	19.5	18.5	22.5	22.0	20.0	19.5
11	10.0	8.0	13.5	12.5	16.5	16.0	19.5	18.5	23.0	22.0	20.0	19.5
12	10.0	9.0	13.5	12.5	16.5	15.5	19.5	18.5	23.5	22.5	20.5	19.5
13	10.0	9.5	13.5	13.0	16.5	16.0	19.0	18.0	23.5	22.5	20.5	20.0
14	10.0	9.0	13.5	13.0	17.0	16.0	19.5	18.0	23.5	22.5	20.0	19.5
15	10.0	9.5	13.0	13.0	17.0	16.0	19.5	18.5	23.5	22.5	19.5	19.0
16	9.5	9.5	13.0	12.5	17.5	16.5	19.5	18.5	23.0	22.5	19.0	19.0
17	10.0	9.0	12.5	12.5	18.5	17.0	19.5	19.0	23.5	22.5	19.0	18.5
18	10.5	9.5	13.0	12.0	18.0	18.0	19.5	19.0	23.5	23.0	19.0	18.5
19	10.5	9.5	13.5	12.5	18.5	17.5	19.5	19.0	23.0	22.5	19.0	18.5
20	10.5	10.0	13.5	13.0	18.0	17.5	20.0	19.5	22.5	22.5	18.5	18.0
21	10.5	10.0	14.0	13.0	18.5	17.5	20.0	19.5	22.5	21.5	18.5	17.5
22	11.0	10.0	14.0	13.5	19.0	18.0	20.5	19.5	22.0	21.0	18.0	17.5
23	11.5	11.0	14.0	13.5	19.5	18.0	21.0	19.5	22.0	21.5	18.0	17.5
24	12.0	11.0	14.0	13.0	19.5	18.5	21.0	19.5	21.5	21.0	17.5	17.5
25	12.5	11.5	14.0	13.5	19.5	19.0	21.0	20.0	21.0	20.5	17.5	17.0
26	12.0	11.5	14.0	13.5	19.5	18.5	21.0	20.0	21.0	20.0	17.5	17.0
27	12.5	11.5	13.5	13.5	20.0	19.0	21.5	20.0	20.5	20.0	17.0	17.0
28	13.0	12.5	14.0	13.5	19.5	19.0	21.0	20.5	21.0	20.0	17.5	17.0
29	13.5	12.5	14.5	13.5	19.5	18.5	21.0	20.0	21.0	20.5	17.5	16.5
30	13.5	12.5	14.0	14.0	20.0	18.5	21.0	20.0	20.5	20.0	17.0	16.5
31	---	---	14.0	14.0	---	---	21.5	20.5	20.5	19.5	---	---
MONTH	13.5	6.5	14.5	12.0	20.0	13.5	21.5	18.0	23.5	19.5	20.5	16.5

14144800 MIDDLE FORK WILLAMETTE RIVER NEAR OAKRIDGE, OR

LOCATION.--Lat 43°35'50", long 122°27'20", in NW¼NE¼ sec.9, T.23 S., R.3 E., Lane County, Hydrologic Unit 17090001, in Willamette National Forest, on right bank 0.2 mi (0.3 km) upstream from Windfall Creek, 8.3 mi (13.4 km) upstream from Hills Creek Dam, 10.2 mi (16.4 km) south of Oakridge, and at mile 240.8 (387.4 km).

DRAINAGE AREA.--258 mi^2 (668 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,556.83 ft (474.522 m) above mean sea level (levels by Corps of Engineers). Prior to June 21, 1967, at site 0.5 mi (0.8 km) upstream at different datums. June 22, 1967, to June 23, 1971, water-stage recorder at same site at datum 5.00 ft (1.524 m) higher.

REMARKS.--Water-discharge records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--19 years, 809 ft^3/s (22.91 m^3/s), 42.58 in/yr (1,082 mm/yr), 586,100 acre-ft/yr (723 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,800 ft^3/s (1,130 m^3/s) Dec. 22, 1964, gage height, 16.96 ft (5.169 m), from floodmark, site and datum then in use, from rating curve extended above 5,100 ft^3/s (144 m^3/s) on basis of slope-area measurement of peak flow; minimum, 187 ft^3/s (5.30 m^3/s) Sept. 15, 16, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 984 ft^3/s (27.9 m^3/s) May 26, gage height, 6.09 ft (1.856 m), no peak above base of 3,500 ft^3/s (99.1 m^3/s); minimum, 187 ft^3/s (5.30 m^3/s) Sept. 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	295	339	276	262	252	470	450	657	705	292	220	212
2	297	325	276	295	252	400	466	830	681	290	217	207
3	305	312	272	295	252	410	450	885	634	286	217	202
4	302	305	272	283	250	390	474	861	634	286	215	202
5	297	302	272	276	250	374	570	796	646	286	212	200
6	297	297	272	255	250	387	640	724	669	283	212	200
7	300	295	269	258	250	427	711	669	663	276	217	197
8	292	295	276	252	247	687	838	628	622	269	222	195
9	292	292	286	252	247	730	743	622	561	262	212	192
10	292	290	279	258	247	561	634	823	514	262	210	192
11	292	290	279	265	247	490	561	823	494	258	205	190
12	292	290	276	297	247	478	547	762	470	258	205	190
13	290	283	272	307	250	458	599	711	450	258	202	190
14	286	295	272	310	250	420	581	693	427	250	202	190
15	286	336	269	295	250	396	551	675	410	250	205	187
16	286	329	269	286	250	353	581	681	393	247	197	192
17	286	307	269	279	250	359	570	699	380	245	195	195
18	286	305	265	283	250	353	528	699	374	245	192	205
19	279	300	262	283	247	356	498	675	362	247	192	222
20	279	297	262	283	250	362	486	663	359	245	192	242
21	279	295	265	279	272	362	470	675	356	240	195	227
22	279	292	258	276	297	387	486	699	346	237	195	212
23	279	290	258	269	297	450	498	782	336	235	192	215
24	295	286	258	269	295	427	533	762	322	235	292	362
25	416	286	258	262	292	396	628	724	315	245	258	290
26	356	283	276	258	295	383	622	909	310	237	252	272
27	315	279	300	255	310	396	593	893	305	232	237	262
28	305	276	283	255	551	458	581	809	300	230	225	486
29	300	276	276	252	---	438	593	730	295	225	222	478
30	300	276	272	252	---	420	610	681	292	225	225	362
31	302	---	265	252	---	413	---	663	---	222	220	---
TOTAL	9257	8923	8414	8453	7597	13391	17092	22903	13625	7858	6654	7168
MEAN	299	297	271	273	271	432	570	739	454	253	215	239
MAX	416	339	300	310	551	730	838	909	705	292	292	486
MIN	279	276	258	252	247	353	450	622	292	222	192	187
CFSM	1.16	1.15	1.05	1.06	1.05	1.67	2.21	2.86	1.76	.98	.83	.93
IN.	1.33	1.29	1.21	1.22	1.10	1.93	2.46	3.30	1.96	1.13	.96	1.03
AC-FT	18360	17700	16690	16770	15070	26560	33900	45430	27030	15590	13200	14220

CAL YR 1976 TOTAL 258152 MEAN 705 MAX 6940 MIN 258 CFSM 2.73 IN 37.22 AC-FT 512000
WTR YR 1977 TOTAL 131335 MEAN 360 MAX 909 MIN 187 CFSM 1.40 IN 18.94 AC-FT 260500

14144800 MIDDLE FORK WILLAMETTE RIVER NEAR OAKRIDGE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1958 to January 1959, September 1959 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 23.0°C July 15, 1970; minimum, 0.0°C on several days during winter period most years.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.0°C July 24, 31; minimum, 1.5°C Jan. 6, 8, 9.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.5	10.5	10.5	9.0	6.0	4.0	5.5	3.5	7.5	4.5	6.5	5.0
2	13.0	11.0	12.0	9.5	6.0	4.0	6.0	5.0	6.5	3.0	6.0	5.0
3	13.0	9.5	11.0	8.5	6.0	4.0	5.5	4.0	6.5	3.0	7.5	5.0
4	12.0	7.5	10.5	7.5	6.5	4.5	5.5	4.5	6.5	3.5	9.0	5.0
5	12.5	7.5	9.0	7.0	6.0	4.0	5.0	2.0	5.5	4.0	9.0	4.5
6	13.0	8.0	10.5	8.0	6.0	3.5	4.0	1.5	7.5	4.5	7.0	4.5
7	14.0	8.5	10.0	7.5	6.0	4.0	4.0	2.0	7.5	4.0	7.5	6.0
8	13.5	9.0	10.5	8.0	6.5	5.0	4.0	1.5	7.0	5.0	7.5	6.0
9	13.0	8.5	9.0	7.0	6.5	5.0	3.5	1.5	8.5	5.0	6.5	4.5
10	12.0	8.5	9.5	7.0	5.5	4.0	5.5	3.0	9.5	6.0	8.5	4.5
11	13.5	9.5	9.0	7.0	6.0	4.0	4.5	3.5	7.5	4.5	8.5	4.5
12	12.0	7.5	10.0	7.5	5.5	3.5	6.0	4.5	9.5	5.0	7.5	5.0
13	12.5	7.5	8.5	6.0	5.5	4.0	6.0	5.0	10.5	7.0	7.0	4.5
14	12.0	7.5	9.5	8.0	6.0	3.5	5.5	4.0	9.0	5.0	7.5	4.0
15	11.5	7.0	10.0	8.5	6.0	4.5	5.5	3.5	9.0	5.0	8.0	4.5
16	11.0	7.0	11.0	9.0	6.5	4.5	5.5	3.5	9.0	5.5	---	4.0
17	11.0	6.5	10.5	8.5	6.0	4.0	6.5	4.0	10.0	6.5	---	---
18	10.5	6.0	11.0	9.0	5.0	3.5	6.0	4.0	9.0	4.5	---	---
19	10.5	6.0	9.0	7.0	4.5	2.5	6.5	4.0	9.5	4.5	---	---
20	10.5	6.0	8.5	5.5	4.5	2.5	6.0	3.5	8.0	5.5	---	---
21	10.5	6.5	10.0	7.0	4.5	2.5	6.5	5.0	7.5	5.5	---	---
22	10.0	6.5	8.5	6.0	5.0	3.5	6.5	4.5	8.0	5.5	---	---
23	10.0	7.5	8.0	5.5	6.5	5.0	5.5	3.5	6.0	4.5	---	---
24	8.0	7.0	8.0	5.5	5.0	3.5	5.5	3.0	7.0	4.5	---	---
25	9.5	8.0	8.5	6.5	6.0	4.0	5.5	2.5	6.5	5.0	---	---
26	10.0	7.5	7.0	4.5	5.5	4.5	5.5	2.5	7.5	5.0	---	---
27	9.5	6.0	5.5	3.0	6.5	4.5	5.5	2.5	8.5	6.0	---	---
28	9.0	6.0	5.5	3.0	5.0	3.0	5.5	2.5	7.0	5.5	---	---
29	9.0	7.5	6.0	3.5	6.0	5.0	5.5	2.0	---	---	---	---
30	10.0	7.5	6.5	4.0	5.5	4.0	5.5	2.5	---	---	---	---
31	9.0	7.5	---	---	5.0	3.0	6.5	4.5	---	---	---	---
MONTH	14.5	6.0	12.0	3.0	6.5	2.5	6.5	1.5	10.5	3.0	9.0	4.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	13.5	10.5	19.0	13.5	20.5	13.5	17.5	10.5
2			---	---	14.0	8.0	18.5	12.5	19.5	14.5	18.0	11.5
3			---	---	12.5	9.0	15.0	11.5	20.5	13.0	18.0	13.0
4			---	---	17.0	10.0	15.5	11.5	20.5	13.5	19.0	13.0
5			---	---	18.0	10.5	14.5	9.5	20.5	13.0	19.0	14.0
6			---	---	18.0	11.5	18.5	11.0	20.0	13.0	19.0	13.5
7			---	---	15.0	12.0	19.5	11.5	17.0	13.5	18.0	12.0
8			---	---	17.0	11.5	19.5	12.0	19.5	12.5	17.0	11.5
9			---	---	16.5	10.0	18.5	13.0	19.5	12.5	16.5	10.5
10			---	---	15.5	11.0	19.5	12.0	20.5	13.0	17.0	10.5
11			---	---	16.5	11.0	20.5	12.0	20.5	13.0	17.0	11.0
12			---	---	17.5	10.5	20.0	13.5	20.5	13.5	17.5	10.5
13			---	---	17.5	10.5	19.5	11.5	19.5	13.5	17.5	11.0
14			---	---	18.0	10.5	20.0	12.0	20.0	13.5	17.0	12.0
15			---	---	17.5	10.0	20.5	12.5	20.5	13.5	14.0	11.5
16			10.5	---	18.0	10.5	20.0	13.0	20.5	13.5	13.5	10.0
17			10.0	7.0	16.5	11.5	20.5	13.0	20.5	13.5	12.5	10.5
18			11.0	7.0	18.0	12.0	17.5	14.5	20.0	14.5	14.0	11.0
19			14.5	7.0	18.0	12.5	20.5	13.0	20.0	14.0	14.5	11.5
20			15.0	8.0	15.5	11.5	21.0	13.0	18.0	13.5	13.5	10.5
21			14.5	9.5	19.5	11.5	20.5	13.5	19.5	14.0	14.0	10.5
22			10.5	8.0	20.0	13.0	20.5	13.0	19.5	13.5	14.0	9.5
23			10.5	8.0	20.0	13.0	18.5	13.5	18.5	12.5	11.5	10.0
24			12.5	8.0	20.0	12.0	21.0	12.5	16.5	13.5	13.5	9.5
25			11.5	7.5	20.5	12.5	19.5	13.5	14.0	12.0	12.5	10.0
26			11.5	8.5	20.0	12.5	20.5	13.0	14.0	12.0	14.5	10.0
27			10.5	7.0	20.0	12.5	20.5	13.0	15.5	11.5	11.5	10.0
28			13.0	7.0	20.5	12.0	19.5	13.0	16.0	12.5	11.0	10.5
29			14.0	7.0	20.0	12.5	19.0	12.0	18.5	12.5	11.5	9.5
30			14.0	8.0	19.0	12.5	20.0	12.0	18.0	13.0	12.0	9.5
31			15.5	9.5	---	---	21.0	13.0	17.0	11.0	---	---
MONTH			15.5	7.0	20.5	8.0	21.0	9.5	20.5	11.0	19.0	9.5

14144900 HILLS CREEK ABOVE HILLS CREEK LAKE, NEAR OAKRIDGE, OR

LOCATION.--Lat 43°40'50", long 122°22'10", in NW¼NW¼ sec.8, T.22 S., R.4 E., Lane County, Hydrologic Unit 17090001, in Willamette National Forest, on right bank 0.2 mi (0.3 km) downstream from Tufti Creek, 0.7 mi (1.1 km) upstream from Hills Creek Lake, 6.5 mi (10.5 km) southeast of Oakridge, and at mile 4.1 (6.6 km).

DRAINAGE AREA.--52.7 mi² (136.5 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1958 to current year. Prior to October 1971, published as Hills Creek above Hills Creek Reservoir.

GAGE.--Water-stage recorder. Datum of gage is 1,630.80 ft (497.068 m) above mean sea level (levels by Corps of Engineers).

REMARKS.--Water-discharge records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--19 years, 154 ft³/s (4.361 m³/s), 39.68 in/yr (1,008 mm/yr), 111,600 acre-ft/yr (138 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft³/s (303 m³/s) Dec. 22, 1964, gage height, 12.23 ft (3.728 m), from rating curve extended above 1,800 ft³/s (51.0 m³/s) on basis of slope-area measurement of peak flow; minimum, 14 ft³/s (0.40 m³/s) Nov. 1, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 335 ft³/s (9.49 m³/s) May 26, gage height, 4.37 ft (1.332 m), no peak above base of 700 ft³/s (19.8 m³/s); minimum, 16 ft³/s (0.45 m³/s) Aug. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	43	23	21	22	56	125	153	196	35	21	25
2	32	38	23	25	20	47	114	220	170	34	21	25
3	36	34	22	24	20	52	104	235	151	33	20	24
4	31	32	22	23	19	51	118	220	170	33	20	23
5	30	30	22	22	19	51	135	172	172	33	20	23
6	29	29	22	23	20	56	156	183	179	32	20	23
7	29	28	22	23	19	70	185	160	163	31	20	22
8	29	27	25	27	19	118	220	146	135	30	20	21
9	29	27	26	63	20	127	185	146	116	29	19	21
10	29	26	25	56	19	96	144	310	102	29	19	20
11	29	25	26	22	20	86	127	304	94	28	19	20
12	28	25	25	28	21	91	125	250	86	28	18	19
13	27	25	24	32	22	81	142	210	78	27	18	19
14	26	28	23	33	23	69	127	206	72	27	18	19
15	26	35	23	29	22	60	122	206	65	27	20	20
16	26	33	23	26	22	55	135	213	59	26	19	20
17	26	30	23	26	21	51	120	253	55	25	18	20
18	25	32	22	28	21	49	107	245	52	27	17	21
19	25	29	21	27	20	52	101	220	52	28	17	26
20	25	28	21	26	21	58	97	215	52	26	17	28
21	25	27	21	25	26	56	97	218	52	25	18	26
22	25	26	21	25	27	63	102	215	47	25	18	24
23	25	25	22	24	25	75	109	245	44	25	17	25
24	29	25	21	23	25	69	133	263	42	26	55	62
25	70	25	21	22	24	63	163	235	41	26	41	42
26	51	25	25	21	25	58	144	302	39	25	42	39
27	39	24	27	21	27	73	131	271	38	24	34	37
28	34	24	25	20	70	76	127	225	38	23	29	107
29	32	24	24	20	---	73	127	190	36	23	32	97
30	31	24	23	20	---	75	131	172	36	22	30	72
31	31	---	22	21	---	81	---	176	---	22	27	---
TOTAL	958	853	715	826	659	2138	3953	6779	2632	854	724	970
MEAN	30.9	28.4	23.1	26.6	23.5	69.0	132	219	87.7	27.5	23.4	32.3
MAX	70	43	27	63	70	127	220	310	196	35	55	107
MIN	25	24	21	20	19	47	97	146	36	22	17	19
CFSM	.59	.54	.44	.51	.45	1.31	2.51	4.16	1.66	.52	.44	.61
IN.	.68	.60	.50	.58	.47	1.51	2.79	4.79	1.86	.60	.51	.68
AC-FT	1900	1690	1420	1640	1310	4240	7840	13450	5220	1690	1440	1920

CAL YR 1976 TOTAL 45251 MEAN 124 MAX 1570 MIN 21 CFSM 2.35 IN 31.94 AC-FT 89760
WTR YR 1977 TOTAL 22061 MEAN 60.4 MAX 310 MIN 17 CFSM 1.15 IN 15.57 AC-FT 43760

14144900 HILLS CREEK ABOVE HILLS CREEK LAKE, NEAR OAKRIDGE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1958 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 22.5°C Aug. 7, 1972; minimum, 0.0°C Jan. 19-25, 1962, Jan. 5-11, 1974, Feb. 4-7, 1976.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.0°C Aug. 12, 16, 17; minimum recorded, 0.5°C Jan. 26-30.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.5	12.0	11.0	10.0	---	---	---	---	4.0	3.5	5.0	4.0
2	14.5	11.5	11.5	10.0	---	---	---	---	3.5	1.5	5.5	4.0
3	12.5	10.0	10.5	8.5	---	---	---	---	3.0	1.5	5.5	3.5
4	11.5	8.0	9.5	7.5	---	---	---	---	3.5	1.5	6.5	4.0
5	12.5	7.5	---	---	---	---	---	---	4.0	2.0	7.0	3.5
6	13.0	9.0	---	---	---	---	---	---	4.5	3.0	6.5	3.5
7	14.0	10.0	---	---	---	---	---	---	5.5	3.0	6.5	5.0
8	13.5	10.5	---	---	---	---	---	---	5.0	4.5	6.5	5.0
9	13.0	9.5	---	---	---	---	---	---	6.0	4.0	5.5	3.5
10	13.5	9.5	---	---	---	---	---	---	6.5	5.0	6.0	3.5
11	13.0	11.0	---	---	---	---	---	---	6.5	4.5	7.0	3.5
12	12.0	9.0	---	---	---	---	4.0	---	7.5	4.5	5.5	4.0
13	12.0	8.5	---	---	---	---	4.0	3.0	8.0	6.5	5.5	3.5
14	11.5	7.5	---	---	---	---	3.5	2.5	7.0	4.5	5.5	3.0
15	10.5	7.5	---	---	---	---	3.5	2.0	7.5	4.5	6.5	3.0
16	10.0	7.5	---	---	---	---	4.0	2.0	7.5	5.0	6.0	3.0
17	9.5	7.0	---	---	---	---	4.5	2.5	7.5	6.0	6.0	3.5
18	9.0	6.0	---	---	---	---	4.5	3.0	7.0	4.5	6.0	4.0
19	9.5	6.0	---	---	---	---	4.0	3.0	7.0	4.0	7.0	4.5
20	9.5	6.5	---	---	---	---	4.5	2.5	7.0	5.0	7.5	4.5
21	9.0	6.5	---	---	---	---	5.0	3.5	6.5	5.0	8.0	3.5
22	9.5	6.5	---	---	---	---	4.0	3.0	6.5	5.0	9.0	4.0
23	9.0	7.5	---	---	---	---	3.5	2.0	5.5	4.0	6.5	5.0
24	8.5	6.5	---	---	---	---	3.0	1.5	5.5	4.0	6.5	4.0
25	8.5	7.5	---	---	---	---	2.5	1.0	5.0	4.5	7.5	4.5
26	9.0	6.5	---	---	3.0	2.0	2.0	0.5	6.5	4.5	7.5	4.5
27	8.5	5.5	---	---	2.5	2.0	2.5	0.5	7.5	5.5	6.5	3.5
28	8.5	5.5	---	---	1.5	1.0	2.0	0.5	6.5	4.5	5.5	3.0
29	9.0	7.5	---	---	1.0	1.0	2.0	0.5	---	---	6.5	3.5
30	9.5	7.5	---	---	---	---	3.0	0.5	---	---	7.0	4.0
31	11.0	7.5	---	---	---	---	4.5	2.5	---	---	5.5	3.5
MONTH	15.5	5.5	11.5	7.5	3.0	1.0	5.0	0.5	8.0	1.5	9.0	3.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.0	4.5			---	---	18.5	14.0	20.0	14.5	16.5	11.5
2	8.0	4.5			---	---	18.0	12.5	20.0	16.0	17.0	12.0
3	9.5	4.5			---	---	15.0	12.0	20.0	15.0	17.0	14.0
4	10.0	4.5			---	---	16.0	11.5	19.5	15.0	18.0	14.0
5	9.5	4.5			---	---	14.5	10.5	20.0	14.5	17.0	15.0
6	10.0	5.0			---	---	17.5	11.0	19.5	14.5	17.5	14.5
7	10.0	5.0			---	---	18.5	11.5	19.0	15.5	16.5	13.0
8	7.0	5.5			---	---	18.5	12.5	20.0	14.5	15.5	12.0
9	6.5	5.0			---	---	17.0	13.0	19.5	14.5	15.0	11.5
10	8.5	4.5			---	---	18.5	12.5	20.0	15.5	15.5	11.5
11	9.5	5.5			---	---	19.5	12.5	20.5	15.5	15.5	12.0
12	10.0	5.0			---	---	18.0	14.5	21.0	16.0	16.0	11.5
13	7.5	5.5			---	---	18.5	11.5	20.5	16.5	16.5	12.5
14	9.0	4.0			---	---	19.0	12.5	20.5	16.0	16.0	13.5
15	9.5	5.5			16.5	---	19.5	13.0	20.5	16.5	14.5	12.0
16	8.0	5.5			17.5	10.0	19.5	13.5	21.0	16.5	13.5	11.0
17	8.5	3.5			17.5	11.0	19.5	14.0	21.0	16.0	13.0	11.0
18	8.0	3.0			17.5	12.0	18.0	15.0	20.5	17.0	14.0	11.5
19	9.0	3.5			18.0	12.5	19.0	12.5	19.5	16.5	13.5	12.5
20	9.5	4.0			14.5	11.5	20.0	14.0	19.5	16.0	13.0	11.0
21	9.5	5.5			18.5	11.5	18.0	14.0	18.5	16.5	13.0	11.0
22	9.5	5.5			19.5	13.5	---	---	18.5	15.5	12.5	10.0
23	10.0	5.5			19.5	13.5	---	---	18.5	14.5	12.0	10.0
24	10.5	6.5			19.5	12.0	---	---	18.5	14.5	12.0	9.5
25	9.0	6.0			20.0	13.0	---	---	14.5	12.5	12.5	10.0
26	10.5	5.0			19.5	12.5	---	---	15.0	12.0	13.5	9.0
27	11.5	5.0			19.5	12.5	---	---	15.5	12.5	11.5	10.0
28	7.5	6.0			20.0	12.5	---	---	16.5	13.5	10.5	10.0
29	---	---			19.5	13.5	18.5	15.5	17.5	13.5	11.0	9.5
30	---	---			18.5	12.5	19.5	13.5	17.5	14.0	10.5	9.0
31	---	---			---	---	20.0	14.0	15.5	11.5	---	---
MONTH	11.5	3.0			20.0	10.0	20.0	10.5	21.0	11.5	18.0	9.0

14145100 HILLS CREEK LAKE NEAR OAKRIDGE, OR

LOCATION.--Lat 43°42'30", long 122°25'25", in NW¼ sec.35, T.21 S., R.3 E., Lane County, Hydrologic Unit 17090001, in Willamette National Forest, near right end of Hills Creek Dam on Middle Fork Willamette River, 600 ft (183 m) downstream from Hills Creek, 3.5 mi (5.6 km) southeast of Oakridge, and at mile 232.5 (374.1 km).

DRAINAGE AREA.--389 mi^2 (1,008 km^2).

PERIOD OF RECORD.--August 1961 to current year. Prior to October 1971, published as Hills Creek Reservoir near Oakridge.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway completed in 1961 by the Corps of Engineers; storage began August 1961. Total capacity is 355,600 acre-ft (438 hm^3) at elevation 1,543.0 ft (470.31 m), top of spillway gates, and usable capacity is 248,900 acre-ft (307 hm^3) between elevations 1,414.0 ft (430.98 m), minimum power pool, and 1,543.0 ft (470.31 m). Reservoir used for flood control and power generation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 354,200 acre-ft (437 hm^3) June 25, 1971, elevation, 1,542.52 ft (470.160 m); minimum, 104,800 acre-ft (129 hm^3) Jan. 2, 1969, elevation, 1,412.52 ft (430.536 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 315,700 acre-ft (389 hm^3) July 16, elevation, 1,527.62 ft (465.619 m); minimum, 135,400 acre-ft (167 hm^3) Jan. 14, elevation, 1,434.86 ft (437.345 m).

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,410	101,500	1,460	174,900	1,520	297,200
1,420	114,600	1,480	211,000	1,540	347,300
1,440	143,000	1,500	251,900	1,544	358,500

ELFVATION. IN FEET ABOVE MEAN SEA LEVEL. WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEH	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1506.49	1471.00	1449.50	1437.13	1435.27	1438.69	1458.69	1483.74	1514.58	1525.67	1521.30	1492.51
2	1505.34	1469.98	1449.24	1436.63	1435.27	1439.14	1459.55	1484.90	1515.30	1525.81	1520.80	1491.14
3	1504.22	1468.90	1448.99	1436.38	1435.26	1439.69	1460.41	1486.18	1515.98	1525.95	1520.32	1489.70
4	1503.13	1468.23	1448.75	1436.24	1435.25	1440.27	1461.36	1487.43	1516.65	1526.10	1519.84	1488.25
5	1501.87	1467.52	1448.49	1436.12	1435.23	1440.66	1462.25	1488.58	1517.32	1526.23	1519.32	1486.73
6	1500.67	1466.78	1448.22	1435.92	1435.23	1441.11	1463.33	1489.60	1518.00	1526.40	1518.82	1485.25
7	1499.40	1465.98	1447.95	1435.75	1435.22	1441.83	1464.53	1490.66	1518.67	1526.56	1518.34	1483.73
8	1498.20	1465.18	1447.70	1435.58	1435.20	1443.11	1466.02	1491.52	1519.26	1526.69	1517.85	1482.00
9	1496.93	1464.38	1447.43	1435.37	1435.20	1444.54	1467.20	1492.36	1519.78	1526.81	1517.35	1480.63
10	1495.67	1463.53	1447.16	1435.22	1435.19	1445.47	1468.12	1493.63	1520.43	1526.95	1516.81	1479.00
11	1494.38	1462.70	1446.85	1435.09	1435.18	1446.20	1468.93	1494.86	1520.85	1527.10	1516.25	1477.36
12	1493.08	1461.85	1446.58	1434.90	1435.18	1446.95	1469.73	1495.95	1521.26	1527.21	1515.73	1475.71
13	1491.69	1461.00	1446.27	1434.89	1435.18	1447.60	1470.67	1496.89	1521.64	1527.34	1515.22	1474.02
14	1490.34	1460.19	1445.97	1434.89	1435.20	1448.14	1471.49	1497.79	1521.98	1527.46	1514.70	1472.26
15	1488.90	1459.32	1445.67	1434.93	1435.23	1448.71	1472.25	1498.68	1522.26	1527.57	1513.73	1470.93
16	1487.55	1457.87	1445.37	1434.99	1435.31	1449.13	1473.06	1499.59	1522.58	1527.60	1512.56	1470.08
17	1486.14	1457.00	1445.12	1435.01	1435.42	1449.60	1473.81	1500.67	1522.85	1527.59	1511.38	1469.50
18	1484.73	1456.32	1444.80	1435.06	1435.58	1450.03	1474.48	1501.71	1523.14	1527.45	1510.20	1468.80
19	1483.27	1455.61	1444.48	1435.08	1435.68	1450.50	1475.11	1502.56	1523.40	1527.20	1508.97	1468.51
20	1481.72	1454.68	1444.04	1435.10	1435.78	1451.00	1475.70	1503.42	1523.67	1526.90	1507.76	1468.26
21	1480.40	1453.74	1443.41	1435.13	1435.96	1451.47	1476.28	1504.30	1523.93	1526.51	1506.60	1468.05
22	1479.47	1452.82	1442.84	1435.15	1436.20	1452.00	1476.90	1505.21	1524.17	1526.03	1505.38	1467.73
23	1478.67	1452.11	1442.29	1435.19	1436.41	1452.73	1477.53	1506.20	1524.33	1525.59	1504.08	1467.46
24	1477.94	1451.50	1441.71	1435.23	1436.60	1453.33	1478.06	1507.20	1524.43	1525.11	1503.02	1467.37
25	1477.46	1451.21	1441.13	1435.24	1436.79	1453.87	1479.08	1508.13	1524.67	1524.68	1501.80	1467.30
26	1476.80	1450.94	1440.62	1435.23	1436.98	1454.36	1479.88	1509.29	1524.84	1524.22	1500.59	1467.21
27	1476.09	1450.65	1440.11	1435.24	1437.22	1455.10	1480.69	1510.50	1525.03	1523.73	1499.25	1467.09
28	1475.11	1450.56	1439.41	1435.24	1438.11	1455.83	1481.36	1511.46	1525.20	1523.24	1497.93	1467.42
29	1474.04	1450.10	1438.85	1435.23	---	1456.51	1482.10	1512.30	1525.35	1522.76	1496.64	1467.71
30	1473.00	1449.78	1438.28	1435.23	---	1457.14	1482.87	1513.04	1525.52	1522.27	1495.29	1467.76
31	1471.93	---	1437.69	1435.24	---	1457.78	---	1513.77	---	1521.77	1493.90	---
MEAN	1488.21	1459.05	1444.67	1435.41	1435.73	1448.47	1471.71	1499.42	1521.57	1525.89	1510.38	1474.98
MAX	1506.49	1471.00	1449.50	1437.13	1438.11	1457.78	1482.87	1513.77	1525.52	1527.60	1521.30	1492.51
MIN	1471.93	1449.78	1437.69	1434.89	1435.18	1438.69	1458.69	1483.74	1514.58	1521.77	1493.90	1467.09
(†)	195,800	158,200	139,600	136,000	140,200	171,200	216,500	282,700	310,500	301,400	238,900	188,300
(‡)	-72,900	-37,600	-18,600	-3,600	+4,200	+31,000	+45,300	+66,200	+27,800	-9,100	-62,500	-50,600

CAL YR 1976 MEAN 1502.79 MAX 1541.22 MIN 1437.69 AC-FT‡ -24,200
WTR YR 1977 MEAN 1476.56 MAX 1527.60 MIN 1434.89 AC-FT‡ -80,400

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14145500 MIDDLE FORK WILLAMETTE RIVER ABOVE SALT CREEK, NEAR OAKRIDGE, OR

LOCATION.--Lat 43°43'20", long 122°26'15", in NW¼NE¼ sec.27, T.21 S., R.3 E., Lane County, Hydrologic Unit 17090001, in Willamette National Forest, on right bank 90 ft (27 m) upstream from highway bridge, 0.4 mi (0.6 km) upstream from Salt Creek, 1.1 mi (1.8 km) downstream from Hills Creek Dam, 2.3 mi (3.7 km) southeast of Oakridge, and at mile 231.4 (372.3 km).

DRAINAGE AREA.--392 mi^2 (1,015 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1913 to September 1914, September 1935 to current year. Monthly discharge only September 1935, published in WSP 1318.

REVISED RECORDS.--WSP 1248: 1914.

GAGE.--Water-stage recorder. Datum of gage is 1,208.01 ft (368.201 m) above mean sea level (levels by Corps of Engineers). Oct. 3, 1913, to Sept. 30, 1914, nonrecording gage and Sept. 1, 1935, to Aug. 18, 1960, water-stage recorder at sites 400 ft (122 m) and 1,000 ft (305 m) downstream, respectively, at different datum.

REMARKS.--Water-discharge records good. Flow regulated since 1961 by Hills Creek Lake (see station 14145100). No diversions above station.

AVERAGE DISCHARGE.--43 years, 1,149 ft^3/s (32.54 m^3/s), 39.80 in/yr (1,011 mm/yr), 832,500 acre-ft/yr (1.03 km^3/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,000 ft^3/s (963 m^3/s) Dec. 28, 1945, gage height, 12.06 ft (3.676 m), site and datum then in use, from rating curve extended above 13,000 ft^3/s (368 m^3/s); minimum observed, 0.70 ft^3/s (0.020 m^3/s) Sept. 8-11, 13, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,910 ft^3/s (54.1 m^3/s) Oct. 21; maximum gage height, 4.55 ft (1.387 m) Sept. 14, 15; minimum discharge, 32 ft^3/s (0.91 m^3/s) June 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1660	1370	504	699	294	206	84	106	96	122	807	1620
2	1660	1360	500	699	291	203	84	108	96	122	807	1610
3	1670	1360	492	536	297	201	84	110	97	122	807	1610
4	1670	996	475	408	297	199	84	101	97	122	812	1670
5	1690	1010	483	405	300	201	84	81	97	122	812	1700
6	1680	1020	487	408	297	192	87	83	99	119	801	1690
7	1700	1040	487	405	297	199	86	81	96	115	812	1670
8	1650	1050	509	412	300	201	69	81	96	115	807	1680
9	1740	1040	514	412	297	197	91	83	97	115	807	1690
10	1750	1040	518	408	297	206	91	83	99	117	818	1700
11	1760	1020	509	405	291	197	91	83	97	117	818	1740
12	1760	1050	514	405	291	197	91	83	97	117	818	1760
13	1760	1040	518	405	291	194	91	84	97	117	812	1760
14	1790	1040	509	358	291	165	92	86	97	117	807	1790
15	1790	1040	504	309	253	78	94	87	92	157	1280	1410
16	1790	1550	504	309	220	78	96	89	97	253	1540	996
17	1820	1110	509	309	220	77	96	92	97	291	1530	753
18	1830	907	518	309	199	81	92	94	99	447	1520	753
19	1830	925	514	309	215	96	89	96	99	594	1470	570
20	1860	1040	584	312	213	97	92	96	99	599	1500	496
21	1680	1040	699	306	213	97	97	96	99	716	1500	492
22	1200	1040	699	294	210	97	97	96	99	835	1480	518
23	1120	882	693	288	203	101	97	92	182	807	1560	527
24	1110	796	693	297	206	101	97	94	250	801	1610	527
25	1140	518	699	300	210	101	101	92	80	796	1610	451
26	1130	514	705	297	215	101	101	97	119	796	1610	408
27	1110	514	699	297	218	104	101	91	121	807	1610	451
28	1260	523	699	294	213	94	101	92	121	807	1590	483
29	1390	518	693	294	---	81	104	92	121	807	1630	487
30	1360	509	699	297	---	80	104	92	121	812	1630	459
31	1360	---	699	297	---	80	---	94	---	812	1620	---
TOTAL	48720	28862	17829	11483	7139	4302	2788	2835	3254	12796	37635	33471
MEAN	1572	962	575	370	255	139	92.9	91.5	108	413	1214	1116
MAX	1860	1550	705	699	300	206	104	110	250	835	1630	1790
MIN	1110	509	475	288	199	77	84	81	80	115	801	408
AC-FT	96640	57250	35360	22780	14160	8530	5530	5620	6450	25380	74650	66390
MEAN†	386	330	273	312	331	643	854	1,168	576	265	198	265
CFSM†	.98	.84	.70	.80	.84	1.64	2.18	2.98	1.47	.68	.51	.68
IN.†	1.14	.94	.80	.92	.88	1.89	2.43	3.44	1.64	.78	.58	.76
AC-FT†	23,740	19,650	16,760	19,180	18,360	39,530	50,830	71,820	34,250	16,280	12,150	15,790

CAL YR 1976 TOTAL 368,485 MEAN 1,007 MAX 5,930 MIN 225 AC-FT 730,900 MEAN† 973 CFSM† 2.48 IN.† 33.81 AC-FT† 706,720
WTR YR 1977 TOTAL 211,114 MEAN 578 MAX 1,860 MIN 77 AC-FT 418,700 MEAN† 467 CFSM† 1.19 IN.† 16.19 AC-FT† 338,340

† Adjusted for change in contents in Hills Creek Lake.

14145500 MIDDLE FORK WILLAMETTE RIVER ABOVE SALT CREEK, NEAR OAKRIDGE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1960 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 25.0°C Sept. 4, 1960; minimum, 1.5°C Jan. 4, 1961.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 18.0°C Sept. 11-14; minimum, 4.5°C Jan. 24 to Feb. 8.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.0	14.5	13.5	13.0	9.5	9.0	6.0	6.0	5.5	4.5	6.5	6.0
2	15.0	14.5	13.5	13.5	9.5	9.0	6.0	6.0	5.5	4.5	6.0	6.0
3	15.0	14.5	13.5	13.5	9.0	8.5	6.0	6.0	5.0	4.5	6.5	5.5
4	15.5	14.5	13.5	13.0	9.0	8.5	6.0	6.0	5.5	4.5	7.0	5.5
5	15.5	15.0	13.5	13.0	8.5	8.5	5.5	5.5	5.0	4.5	7.5	5.5
6	15.5	15.0	13.5	13.0	8.5	8.0	5.5	5.5	5.0	4.5	7.0	6.0
7	15.5	15.0	13.0	13.0	8.5	8.0	5.5	5.5	5.5	4.5	6.5	6.0
8	15.5	15.0	13.0	12.5	8.5	8.0	5.5	5.0	5.0	4.5	7.0	6.0
9	16.0	15.0	13.0	12.5	8.0	8.0	5.5	5.0	5.5	5.0	6.5	5.5
10	15.5	15.0	13.0	12.5	8.5	8.0	5.5	5.0	6.0	5.0	7.5	5.5
11	16.0	15.0	13.0	12.0	8.0	8.0	5.5	5.0	5.5	5.0	7.5	6.0
12	16.0	15.5	12.5	12.0	8.0	7.5	5.5	5.0	5.5	5.0	7.0	6.0
13	16.0	15.5	12.5	12.0	8.0	7.5	5.5	5.0	6.0	5.0	7.0	6.0
14	16.0	15.5	12.0	12.0	8.0	7.5	5.5	5.0	6.5	5.0	7.5	5.5
15	16.0	15.5	12.0	12.0	8.0	7.5	5.5	5.0	6.5	5.5	8.0	5.5
16	15.5	15.0	12.0	12.0	7.5	7.5	5.5	5.0	7.0	5.5	9.0	5.5
17	15.5	15.0	12.5	11.5	7.5	7.0	5.5	5.0	7.0	5.5	7.5	5.0
18	15.5	15.0	12.0	11.5	7.5	7.0	5.5	5.0	7.5	5.5	7.5	6.0
19	15.5	15.0	12.0	11.5	7.5	7.0	5.5	5.0	7.0	5.5	8.5	6.0
20	15.5	15.0	12.0	11.5	7.0	7.0	5.5	5.0	6.5	5.5	8.5	6.0
21	15.0	14.0	11.5	11.0	7.0	7.0	5.5	5.0	6.5	5.5	9.0	5.5
22	14.5	13.5	11.5	11.0	7.0	6.5	5.5	5.0	6.5	6.0	9.5	6.0
23	14.5	14.0	11.5	11.0	7.0	6.5	5.5	5.0	6.0	5.5	7.5	6.0
24	14.0	14.0	11.0	10.5	6.5	6.5	5.5	4.5	6.5	5.5	8.5	6.0
25	14.0	13.5	11.0	10.5	6.5	6.5	5.5	4.5	6.0	5.5	9.0	6.0
26	14.0	13.5	10.5	10.0	6.5	6.5	5.5	4.5	6.5	5.5	8.0	6.0
27	14.0	13.5	10.5	9.5	6.5	6.5	5.5	4.5	6.5	6.0	7.5	6.0
28	14.0	13.5	10.0	9.5	6.5	6.0	5.0	4.5	6.5	6.0	9.5	6.0
29	13.5	13.5	10.0	9.5	6.5	6.0	5.5	4.5	---	---	8.5	6.5
30	13.5	13.0	10.0	9.0	6.5	6.0	5.0	4.5	---	---	9.0	6.0
31	13.5	13.0	---	---	6.0	6.0	5.0	4.5	---	---	7.5	6.0
MONTH	16.0	13.0	13.5	9.0	9.5	6.0	6.0	4.5	7.5	4.5	9.5	5.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.5	6.5	9.0	7.0	10.5	7.5	11.5	8.5	9.5	9.0	16.0	15.0
2	10.0	6.5	10.0	7.0	11.0	6.5	13.0	7.0	11.0	9.0	16.5	15.0
3	10.0	6.5	9.0	7.0	9.5	7.5	10.5	7.0	11.5	9.0	16.5	16.0
4	10.5	6.0	9.5	6.5	12.5	8.0	12.0	8.0	11.0	9.0	16.5	15.5
5	10.5	6.0	8.5	6.5	13.0	8.0	9.5	8.0	12.5	9.0	17.0	16.0
6	10.5	6.5	10.5	7.0	13.0	7.5	12.0	7.5	11.0	9.0	17.5	16.0
7	10.5	6.5	10.5	7.0	10.5	8.5	12.5	7.5	12.0	9.0	17.5	16.5
8	8.5	6.5	11.5	6.5	12.0	7.5	12.0	8.0	13.0	9.5	17.5	16.5
9	9.0	6.5	9.5	7.0	12.0	7.0	11.5	8.5	12.5	9.0	17.5	16.5
10	10.0	6.5	8.0	7.0	11.0	8.0	12.5	8.0	12.5	9.5	17.5	16.5
11	10.0	7.0	10.0	7.0	11.5	7.5	13.0	8.0	12.5	9.5	18.0	17.0
12	10.5	6.5	10.5	6.5	11.5	7.5	11.5	8.5	11.5	9.5	18.0	17.0
13	8.5	6.5	10.5	7.0	12.0	7.5	12.0	8.5	12.5	8.5	18.0	17.0
14	10.0	6.5	9.5	7.0	12.0	7.5	12.5	8.0	12.5	10.0	18.0	16.5
15	9.5	6.5	9.0	6.5	12.0	7.5	12.0	8.0	14.0	11.0	17.5	16.0
16	9.5	6.5	9.5	7.0	12.5	7.5	9.5	7.5	14.5	9.0	16.5	15.0
17	10.0	6.5	9.5	7.0	12.0	7.5	10.0	8.0	14.5	9.0	15.5	15.0
18	10.0	6.0	9.5	7.0	12.0	8.0	11.0	8.0	14.0	12.0	15.5	15.0
19	10.0	6.0	11.5	7.0	11.5	8.0	9.5	8.5	12.0	11.5	15.0	13.0
20	10.0	6.0	11.5	6.5	10.0	8.0	11.5	7.5	15.0	12.0	13.5	13.0
21	9.5	6.5	11.5	7.0	12.5	8.0	11.0	8.0	15.5	12.0	14.0	13.0
22	9.5	6.5	9.0	6.5	12.5	8.5	9.0	8.5	15.0	12.0	15.0	13.5
23	9.5	6.5	9.5	7.0	10.0	7.5	9.0	8.5	16.0	12.5	14.5	13.5
24	10.0	6.5	10.5	7.0	10.0	7.5	10.5	8.5	16.0	13.0	14.5	13.5
25	9.5	7.0	10.0	7.5	12.5	8.0	11.5	9.0	15.5	11.5	14.5	12.0
26	10.5	6.5	10.0	7.0	12.0	8.0	11.5	8.5	16.0	13.5	15.0	11.0
27	11.0	6.5	9.5	7.0	12.0	8.0	10.0	8.5	14.0	13.5	14.5	11.5
28	9.5	6.5	11.5	7.0	12.0	8.5	11.5	8.5	15.5	14.0	15.0	11.5
29	10.0	7.0	12.0	7.0	12.0	8.5	11.0	8.5	15.5	14.0	14.5	12.5
30	10.0	7.0	11.0	7.0	11.5	8.0	9.5	9.0	15.5	15.0	14.5	11.5
31	---	---	12.0	7.5	---	---	10.0	8.5	15.5	15.0	---	---
MONTH	11.0	6.0	12.0	6.5	13.0	6.5	13.0	7.0	16.0	8.5	18.0	11.0

14146500 SALMON CREEK NEAR OAKRIDGE, OR

LOCATION.--Lat 43°45'45", long 122°22'18", in NE¼ sec.7, T.21 S., R.4 E., Lane County, Hydrologic Unit 17090001, in Willamette National Forest, on right bank 190 ft (58 m) upstream from Salmon Creek Falls, 0.1 mi (0.2 km) upstream from Needle Creek, 4.6 mi (7.4 km) east of Oakridge, and at mile 5.84 (9.40 km).

DRAINAGE AREA.--117 mi^2 (303 km^2), at measuring cable 0.6 mi (1.0 km) downstream from gage.

PERIOD OF RECORD.--October to November 1909 (gage heights and one discharge measurement only), February 1913 to October 1919, October 1933 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as Kelsey River near Hazeldell and Salmon Creek near Hazeldell, 1909.

REVISED RECORDS.--WSP 794: 1934(M). WSP 814: Drainage area. WSP 1124: 1935, 1942(M), 1943, 1946(M). WSP 1248: 1915, 1918. WRD 1971 Oreg.: 1968, 1969(M,P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,462.36 ft (445.727 m) above mean sea level. Prior to Oct. 1, 1914, nonrecording gage at several sites within 4 mi (6 km) of present site at various datums. Oct. 1, 1914, to Oct. 14, 1919, water-stage recorder at site 1.8 mi (2.9 km) downstream at different datum. Nov. 5, 1933, to Oct. 27, 1964, water-stage recorder at site 0.8 mi (1.3 km) downstream at datum 40.53 ft (12.354 m) lower. Oct. 28, 1964, to Aug. 27, 1965, nonrecording gage at site 0.6 mi (1.0 km) downstream at different datum.

REMARKS.--Records good. No regulation or diversion above station. All records given herein are for measuring cable site.

AVERAGE DISCHARGE.--50 years (water years 1914-19, 1934-77), 427 ft^3/s (12.09 m^3/s), 49.56 in/yr (1,259 mm/yr), 309,400 acre-ft/yr (381 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,600 ft^3/s (329 m^3/s) Dec. 22, 1964, gage height, 9.15 ft (2.789 m), from floodmark, site and datum then in use, from rating curve extended above 2,100 ft^3/s (59.5 m^3/s) on basis of slope-area measurement of peak flow; minimum, 63 ft^3/s (1.78 m^3/s) Jan. 8, 1937.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 773 ft^3/s (21.9 m^3/s) May 10, 11, gage height, 2.93 ft (0.893 m), no peak above base of 1,700 ft^3/s (48.1 m^3/s); minimum, 122 ft^3/s (3.46 m^3/s) Aug. 16-19, 23, 24, Sept. 11-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	182	141	138	133	244	387	448	482	167	133	138
2	143	170	141	152	133	215	358	617	468	167	133	135
3	149	165	138	149	131	244	307	632	429	165	133	133
4	143	159	138	146	128	229	312	589	448	165	131	131
5	143	154	138	141	128	220	366	555	455	162	131	128
6	141	154	138	138	128	229	448	489	496	154	131	128
7	138	154	138	138	128	249	537	435	489	154	138	128
8	154	152	143	135	128	345	654	395	435	154	133	124
9	152	152	149	133	128	416	568	395	380	154	131	124
10	152	146	141	131	128	345	455	716	345	154	128	124
11	152	143	141	133	128	307	395	716	322	154	126	124
12	152	143	141	143	128	322	366	639	302	149	126	122
13	149	143	138	159	131	302	422	568	293	149	126	122
14	149	143	135	165	131	269	395	528	274	149	126	122
15	149	193	135	157	131	244	366	519	265	149	126	122
16	149	182	135	152	131	229	373	528	249	146	124	122
17	146	165	135	146	131	165	338	647	249	146	124	122
18	146	167	133	146	128	165	312	647	239	149	122	124
19	146	159	133	146	128	182	293	589	229	149	124	133
20	143	157	133	146	128	206	274	568	225	146	124	138
21	143	154	133	146	138	193	269	575	225	141	124	135
22	143	152	133	143	143	206	274	582	211	143	124	133
23	143	149	133	143	143	244	298	632	202	146	124	143
24	152	146	133	141	141	229	352	617	193	146	172	229
25	288	146	138	138	141	206	448	568	189	143	159	197
26	211	146	152	135	146	189	442	603	186	141	170	186
27	172	143	157	135	162	249	402	568	178	138	149	170
28	165	143	149	133	274	244	387	528	172	138	143	298
29	159	143	143	133	---	229	387	475	170	135	154	298
30	159	141	141	133	---	225	387	442	167	135	162	249
31	159	---	138	133	---	229	---	435	---	135	149	---
TOTAL	4831	4646	4314	4407	3876	7570	11572	17245	8967	4623	4200	4582
MEAN	156	155	139	142	138	244	386	556	299	149	135	153
MAX	288	193	157	165	274	416	654	716	496	167	172	298
MIN	138	141	133	131	128	165	269	395	167	135	122	122
CFSM	1.33	1.33	1.19	1.21	1.18	2.09	3.30	4.75	2.56	1.27	1.15	1.31
IN.	1.54	1.48	1.37	1.40	1.23	2.41	3.68	5.48	2.85	1.47	1.34	1.46
AC-FT	9580	9220	8560	8740	7690	15020	22950	34210	17790	9170	8330	9090

CAL YR 1976 TOTAL 158941 MEAN 434 MAX 3410 MIN 133 CFSM 3.71 IN 50.54 AC-FT 315300
WTR YR 1977 TOTAL 80833 MEAN 221 MAX 716 MIN 122 CFSM 1.89 IN 25.70 AC-FT 160300

14146950 WALDO LAKE NEAR OAKRIDGE, OR

LOCATION.--Lat 43°46'05", long 122°03'10", in SE¼NW¼ sec.7, T.21 S., R.6 E., Lane County, Hydrologic Unit 17090001, Willamette National Forest, on left bank at head of artificial outlet channel for Waldo Lake, at headwaters of the North Fork of the Middle Fork Willamette River, 20 mi (32 km) east of Oakridge, and at mile 43.51 (70.0 km).

DRAINAGE AREA.--30.5 mi^2 (79.0 km^2).

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Nonrecording gage. Altitude of gage is 5,410 ft (1,649.0 m), from topographic map; gage readings have been reduced to elevations above mean sea level. Present gage is at same site and datum as former gage for Waldo Lake outlet near Oakridge (see sta 14147000) for period 1936-53.

REMARKS.--Lake not regulated. Lake level was lowered approximately 0.5 ft (0.2 m) when low rock dam in artificial outlet channel was removed Sept. 23, 1971. Lake outlet is an old artificial outlet channel 30 ft (9 m) below the gage. Diversion tunnel into head of Black Creek, near south end of lake, built about 1914, is not used; but leakage past old control gates was measured at 1.32 ft^3/s (0.037 m^3/s) Aug. 23, 1977. The maximum stage of the lake during period 1936-53 was 5,412.98 ft (1,649.876 m), which occurred Jan. 2, 1943. At times during this period the lake elevation could have been as much as 2 ft (0.6 m) below elevation 5,410 ft (1,649.0 m). A high-water mark noted Sept. 3, 1936, indicated that an elevation of 5,413.2 ft (1,649.94 m) had occurred sometime previous to that date. See station 14147000 for lake elevations for period 1936-53.

COOPERATION.--Waldo Lake bathymetric chart, used to compute capacity table, furnished by Environmental Protection Agency.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 778,900 acre-ft Mar. 18, 1971, elevation, 5,413.25 ft (1,649.969 m); minimum observed, 759,900 acre-ft (937 hm^3) Oct. 1, 1973, elevation, 5,410.22 ft (1,649.035 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 767,100 acre-ft (946 hm^3) June 14, elevation, 5,411.38 ft (1,649.389 m); minimum observed, 760,700 acre-ft (938 hm^3) Aug. 23, elevation, 5,410.36 ft (1,649.078 m).

ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)
Oct. 1	5,410.87	763,900
Nov. 3	5,410.70	762,800
Dec. 3	5,410.50	761,600
June 14	5,411.38	767,100
July 19	5,410.85	763,800
Aug. 23	5,410.36	760,700

14147000 WALDO LAKE OUTLET NEAR OAKRIDGE, OR

LOCATION.--Lat 43°46'05", long 122°03'10", in SE¼NW¼ sec.7, T.21 S., R.6 E., Lane County, Hydrologic Unit 17090001, in Willamette National Forest, on right bank of artificial outlet channel of Waldo Lake forming the headwaters of the North Fork of the Middle Fork of Willamette River, 20 mi (32 km) east of Oakridge, and at mile 43.5 (70.0 km).

DRAINAGE AREA.--30.5 mi² (79.0 km²), of which about 10.5 mi² (27.2 km²) is Waldo Lake.

PERIOD OF RECORD.--October 1936 to September 1953, October 1969 to current year.

REVISED RECORDS.--WSP 2135: Drainage area.

GAGE.--Water-stage recorder and modified v-notch weir. Altitude of gage is 5,410 ft (1,649 m), from topographic map. October 1936 to September 1953, at site 120 ft (37 m) upstream on left bank at same datum.

REMARKS.--Records good. At times seiches from Waldo Lake cause rapid changes in stage at gage many times each hour. No regulation. Diversion tunnel into head of Black Creek, near south end of lake, built about 1914, is sealed off, but there is leakage of about 0.58 ft³/s (0.016 m³/s) past control gates, measured Aug. 23, 1977.

AVERAGE DISCHARGE.--25 years, 34.9 ft³/s (0.988 m³/s), 25,290 acre-ft/yr (31.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 150 ft³/s (4.25 m³/s) Jan. 20, 1971, from rating curve extended above 77 ft³/s (2.18 m³/s) and adjusted for overbank flow; maximum gage height, 2.98 ft (0.908 m) Jan. 2, 1943; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--A high-water mark in the channel of a previous high stage in the lake was noted on Sept. 3, 1936, as 3.2 ft (0.98 m) gage height, affected by seiche.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30 ft³/s (0.85 m³/s) June 6, gage height, 1.23 ft (0.375 m); minimum, 0.19 ft³/s (0.005 m³/s) Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	7.0	3.0	1.4	.66	2.2	12	11	25	18	7.0	3.0
2	10	7.0	2.8	1.8	.62	2.5	12	12	25	17	6.7	2.7
3	10	7.0	2.8	1.6	.58	3.7	12	14	25	16	6.5	2.4
4	10	6.7	2.5	1.8	.54	3.7	12	15	26	16	5.9	1.9
5	9.9	6.5	2.5	1.9	.50	3.7	11	17	26	15	5.7	1.3
6	9.9	6.2	2.4	1.5	.50	3.3	11	17	27	15	5.2	1.2
7	9.3	5.9	2.4	1.5	.50	3.7	11	17	27	14	4.9	1.1
8	8.7	5.7	2.4	1.5	.47	4.3	11	17	27	14	4.7	.89
9	8.7	5.4	2.8	1.4	.44	5.7	11	17	27	13	4.5	.71
10	8.4	5.4	2.8	1.4	.41	6.5	11	19	27	13	4.1	.71
11	8.1	5.2	2.7	1.5	.41	6.5	11	20	27	13	3.7	.71
12	7.8	4.9	2.5	1.5	.38	7.0	11	20	27	12	3.5	.66
13	7.3	4.5	2.4	1.5	.41	7.5	11	19	27	12	3.3	.54
14	7.3	4.5	2.2	1.6	.41	7.5	11	20	26	11	3.0	.47
15	6.7	5.4	2.2	1.6	.38	7.3	11	21	26	11	3.2	.35
16	6.7	5.7	2.1	1.6	.35	7.0	11	22	25	11	2.8	.27
17	6.5	5.4	2.0	1.5	.35	7.0	11	24	25	10	2.5	.24
18	6.2	5.7	2.0	1.2	.35	7.5	11	24	24	10	2.4	.35
19	5.4	5.4	1.9	1.2	.32	7.8	11	23	24	10	2.2	.32
20	4.9	5.4	1.8	1.1	.29	8.1	11	23	23	9.9	2.1	.47
21	4.7	5.2	1.6	1.1	.38	7.8	10	23	23	9.6	2.1	.50
22	4.5	4.9	1.5	1.1	.50	7.5	10	23	22	9.3	1.9	.47
23	4.3	4.7	1.6	.97	.58	7.8	9.9	24	22	9.3	1.8	.58
24	4.5	4.5	1.6	.89	.58	8.1	9.9	24	21	9.3	2.5	1.1
25	6.7	4.3	1.5	.89	.62	8.4	9.6	24	21	9.3	3.0	1.5
26	7.3	4.5	1.8	.76	.76	8.1	9.9	25	20	9.0	3.3	1.6
27	7.0	4.1	2.0	.71	.89	9.9	9.9	25	20	8.7	3.0	1.6
28	6.7	3.5	1.8	.66	1.5	11	9.9	26	19	8.1	3.0	2.4
29	6.5	3.3	1.6	.66	---	11	9.9	25	18	7.8	3.3	2.5
30	6.2	3.2	1.5	.62	---	11	9.9	25	18	7.5	3.3	2.5
31	6.5	---	1.4	.62	---	11	---	25	---	7.3	3.2	---
TOTAL	226.3	157.1	66.1	39.08	14.68	214.1	322.9	641	720	356.1	114.3	35.04
MEAN	7.30	5.24	2.13	1.26	.52	6.91	10.8	20.7	24.0	11.5	3.69	1.17
MAX	10	7.0	3.0	1.9	1.5	11	12	26	27	18	7.0	3.0
MIN	4.3	3.2	1.4	.62	.29	2.2	9.6	11	18	7.3	1.8	.24
AC-FT	449	312	131	78	29	425	640	1270	1430	706	227	70

CAL YR 1976 TOTAL 15206.50 MEAN 41.5 MAX 111 MIN 1.4 AC-FT 30160
WTR YR 1977 TOTAL 2906.70 MEAN 7.96 MAX 27 MIN .24 AC-FT 5770

14147500 NORTH FORK OF MIDDLE FORK WILLAMETTE RIVER NEAR OAKRIDGE, OR

LOCATION.--Lat 43°45'25", long 122°30'15", in SW¼ sec.7, T.21 S., R.3 E., Lane County, Hydrologic Unit 17090001, on left bank 2.5 mi (4.0 km) northwest of Oakridge and at mile 1.0 (1.6 km).

DRAINAGE AREA.--246 mi^2 (637 km^2), at measuring section 0.5 mi (0.8 km) downstream.

PERIOD OF RECORD.--October 1909 to March 1916, September 1935 to current year. Monthly discharge only for some periods, published in WSP 1318. Prior to October 1912, published as "near Hazeldell."

REVISED RECORDS.--WSP 1248: 1914-16.

GAGE.--Water-stage recorder. Datum of gage is 1,029.6 ft (313.82 m) above mean sea level (river profile survey). Oct. 1, 1909, to Mar. 31, 1916, water-stage recorder or nonrecording gage at several sites within 0.8 mi (1.3 km) of present site at various datums. Sept. 10, 1935, to Oct. 3, 1938, nonrecording gage at present site and datum.

REMARKS.--Records good. Slight regulation by Waldo Lake; occasional fluctuations during low-water periods caused by log-ponds above station. No diversions above station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--48 years (water years 1910-15, 1936-77), 793 ft^3/s (22.46 m^3/s), 43.78 in/yr (1,112 mm/yr), 574,500 acre-ft/yr (708 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,400 ft^3/s (691 m^3/s) Dec. 22, 1964, gage height, 19.14 ft (5.834 m), from floodmark, from rating curve extended above 7,100 ft^3/s (201 m^3/s) on basis of slope-area measurement of peak flow; minimum, 22 ft^3/s (0.62 m^3/s) Aug. 20, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,490 ft^3/s (42.2 m^3/s) Apr. 8, gage height, 3.92 ft (1.195 m), no peak above base of 3,500 ft^3/s (99.1 m^3/s); minimum, 85 ft^3/s (2.41 m^3/s) Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	157	290	160	168	157	443	841	814	836	266	136	157
2	160	256	157	227	146	381	803	1060	786	221	136	146
3	175	218	154	221	141	457	715	1100	731	215	133	141
4	168	200	154	200	138	401	748	1120	758	215	131	136
5	162	186	152	189	136	377	873	1090	737	212	128	133
6	160	181	149	170	136	389	997	976	737	206	128	131
7	157	173	149	170	136	443	1160	884	705	200	128	126
8	154	170	160	165	136	737	1380	820	649	194	133	121
9	152	168	189	157	136	857	1210	797	594	192	128	121
10	152	165	170	168	136	705	1000	1140	546	189	126	119
11	152	162	168	168	138	612	884	1230	510	183	124	119
12	152	160	165	178	138	635	846	1110	471	181	110	119
13	146	157	162	221	144	576	906	997	434	160	119	117
14	144	168	157	243	146	505	868	934	409	154	119	117
15	144	259	154	215	141	457	809	939	385	170	117	114
16	144	280	154	200	138	422	814	1000	361	170	117	117
17	141	224	154	194	138	401	764	1280	346	168	114	124
18	141	224	152	197	136	397	700	1270	332	173	114	124
19	138	209	146	194	133	466	645	1120	317	175	105	141
20	146	197	144	194	133	533	612	1070	310	168	110	162
21	136	192	144	192	149	485	599	1050	310	160	112	165
22	136	183	144	183	173	515	608	1030	293	154	112	154
23	141	181	149	178	170	594	640	1100	283	154	110	146
24	149	175	149	173	160	559	715	1070	269	162	181	280
25	354	175	149	168	160	515	857	983	263	160	183	283
26	300	175	194	162	183	476	846	1070	256	154	197	287
27	212	168	240	157	233	645	769	1050	249	152	173	227
28	183	165	206	154	550	664	737	990	240	141	152	373
29	178	160	189	152	---	617	737	900	233	146	209	397
30	173	160	178	146	---	581	737	836	227	141	215	346
31	175	---	173	149	---	563	---	803	---	141	189	---
TOTAL	5182	5781	5065	5653	4561	16408	24820	31633	13577	5477	4289	5243
MEAN	167	193	163	182	163	529	827	1020	453	177	138	175
MAX	354	290	240	243	550	857	1380	1280	836	266	215	397
MIN	136	157	144	146	133	377	599	797	227	141	105	114
CFSM	.68	.79	.66	.74	.66	2.15	3.36	4.15	1.84	.72	.56	.71
IN.	.78	.87	.77	.85	.69	2.48	3.75	4.78	2.05	.83	.65	.79
AC-FT	10280	11470	10050	11210	9050	32550	49230	62740	26930	10860	8510	10400

CAL YR 1976 TOTAL 262511 MEAN 717 MAX 7520 MIN 136 CFSM 2.92 IN 39.70 AC-FT 520700
WTR YR 1977 TOTAL 127689 MEAN 350 MAX 1380 MIN 105 CFSM 1.42 IN 19.31 AC-FT 253300

14148000 MIDDLE FORK WILLAMETTE RIVER BELOW NORTH FORK, NEAR OAKRIDGE, OR

LOCATION.--Lat 43°48'05", long 122°33'35", in SW¼ sec.27, T.20 S., R.2 E., Lane County, Hydrologic Unit 17090001, on left bank 0.5 mi (0.8 km) downstream from Whitehead Creek, 4.2 mi (6.8 km) downstream from North Fork of Middle Fork Willamette River, 7.0 mi (11.3 km) northwest of Oakridge, and at mile 220.2 (354.3 km).

DRAINAGE AREA.--924 mi^2 (2,393 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1911 to September 1912, July 1923 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as "near Hazeldell" 1911-12 and as "at Eula" 1923-50.

REVISED RECORDS.--WSP 694: 1925-28. WSP 814: Drainage area at Eula. WSP 1248: 1924, 1925(M), 1926-28, 1929(M), 1930, 1933, 1946(M). WSP 1398: 1927(M). WSP 1638: 1936(M).

GAGE.--Water-stage recorder. Datum of gage is 934.76 ft (284.915 m) above mean sea level. Mar. 22, 1911, to Sept. 30, 1912, nonrecording gage at site 4.0 mi (6.4 km) upstream, just below North Fork at different datum. July 1, 1923, to Aug. 11, 1935, nonrecording gage and Aug. 12, 1935, to Sept. 30, 1950, water-stage recorder at site 4.0 mi (6.4 km) downstream at different datum.

REMARKS.--Water-discharge records excellent. Flow regulated since 1961 by Hills Creek Lake (see station 14145100); slight regulation at times by logponds above station. No diversion above station.

AVERAGE DISCHARGE.--55 years, 2,769 ft^3/s (78.42 m^3/s), 2,006,000 acre-ft/yr (2.47 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,800 ft^3/s (2,320 m^3/s) Dec. 28, 1945, gage height, 18.8 ft (5.73 m), from floodmark, site and datum then in use, from rating curve extended above 39,000 ft^3/s (1,100 m^3/s); minimum, 322 ft^3/s (9.12 m^3/s) Aug. 30, 1961, caused by closing outlet gates at Hills Creek Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1861 and prior to beginning of record, 17.0 ft (5.18 m) in February 1890 at site used 1923-50, from information by local resident, discharge, about 55,000 ft^3/s (1,560 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,050 ft^3/s (86.4 m^3/s) May 18, gage height, 3.07 ft (0.936 m); minimum, 440 ft^3/s (12.5 m^3/s) July 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2150	2080	990	1220	734	1210	1800	1770	1940	638	1260	2180
2	2160	2010	978	1310	714	1080	1790	2280	1870	638	1260	2150
3	2200	1940	966	1180	714	1270	1590	2450	1750	601	1250	2130
4	2180	1580	942	966	704	1170	1610	2470	1790	601	1250	2180
5	2160	1550	942	918	704	1100	1790	2410	1790	601	1250	2200
6	2160	1550	954	894	704	1100	1950	2200	1840	582	1230	2200
7	2160	1560	942	883	704	1190	2200	2010	1800	564	1250	2160
8	2160	1560	1000	883	704	1690	2670	1840	1660	546	1250	2160
9	2180	1550	1090	860	704	1990	2390	1790	1500	546	1230	2180
10	2180	1550	1040	871	704	1750	2010	2560	1360	537	1250	2180
11	2180	1520	1030	883	704	1550	1800	2840	1250	529	1230	2220
12	2180	1550	1010	918	704	1590	1720	2540	1150	520	1220	2240
13	2180	1550	1000	1010	714	1490	1640	2240	1090	503	1230	2240
14	2180	1560	990	1030	714	1330	1770	2130	1030	487	1230	2280
15	2180	1720	978	883	675	1110	1670	2130	966	537	1630	1940
16	2180	2240	978	849	628	1050	1700	2220	906	638	2010	1520
17	2200	1800	978	827	619	990	1630	2820	871	704	1990	1190
18	2220	1550	990	827	601	978	1500	2890	838	849	1990	1190
19	2220	1530	978	827	610	1090	1400	2540	817	1090	1970	1060
20	2240	1640	1010	817	610	1250	1340	2370	785	1090	1970	978
21	2130	1630	1170	806	656	1150	1330	2300	796	1170	1990	978
22	1590	1610	1170	785	704	1190	1340	2260	754	1330	1970	978
23	1580	1460	1180	765	695	1340	1400	2450	785	1300	2020	990
24	1560	1340	1180	754	675	1270	1530	2410	849	1310	2300	1300
25	2060	1080	1180	754	675	1180	1770	2220	685	1300	2300	1180
26	1920	1040	1270	744	724	1100	1800	2410	685	1290	2320	1140
27	1700	1010	1340	734	785	1400	1670	2340	666	1290	2220	1060
28	1770	1010	1290	724	1310	1470	1630	2180	647	1270	2180	1460
29	1900	1010	1250	724	---	1380	1630	2020	628	1270	2260	1550
30	1870	1000	1230	724	---	1310	1630	1890	619	1270	2280	1370
31	1870	---	1220	724	---	1290	---	1840	---	1270	2240	---
TOTAL	63600	45780	33266	27094	19893	40058	51900	70820	34117	26871	53030	50584
MEAN	2052	1526	1073	874	710	1292	1730	2285	1137	867	1711	1686
MAX	2240	2240	1340	1310	1310	1990	2670	2890	1940	1330	2320	2280
MIN	1560	1000	942	724	601	978	1330	1770	619	487	1220	978
AC-FT	126200	90800	65980	53740	39460	79460	102900	140500	67670	53300	105200	100300

CAL YR 1976 TOTAL 914787 MEAN 2499 MAX 20300 MIN 933 AC-FT 1814000
WTR YR 1977 TOTAL 517013 MEAN 1416 MAX 2890 MIN 487 AC-FT 1025000

14148000 MIDDLE FORK WILLAMETTE RIVER BELOW NORTH FORK, NEAR OAKRIDGE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: September 1950 to October 1960, June 1961 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 23.5°C Aug. 3, 1961; minimum, 0.0°C Jan. 20-22, 1962.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 20.0°C July 15; minimum, 2.5°C Jan. 9.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.0	14.0	13.0	11.0	7.5	6.5	5.5	5.0	7.0	5.5	6.0	5.0
2	15.0	13.5	13.5	12.0	7.5	6.5	6.0	5.5	6.5	5.0	5.5	5.0
3	15.0	13.5	13.5	11.5	7.5	6.0	5.5	5.0	6.5	4.0	6.0	5.0
4	15.0	13.0	13.0	11.0	7.0	6.0	6.0	5.0	7.0	4.5	7.5	5.5
5	15.5	13.0	12.5	10.0	7.0	5.5	5.0	3.5	6.0	5.0	7.5	5.5
6	16.0	13.5	13.0	10.5	6.5	5.5	4.5	3.0	7.0	5.5	6.5	6.0
7	16.0	13.5	12.5	11.0	6.5	5.5	4.0	3.0	7.0	5.0	7.0	6.5
8	15.5	14.0	12.5	10.5	6.5	6.0	4.0	3.0	7.0	5.5	7.0	6.0
9	16.0	13.5	12.0	11.0	6.5	5.5	4.0	2.5	8.0	6.0	6.5	5.0
10	15.5	13.5	12.0	10.5	6.0	4.5	5.0	3.0	9.0	6.5	7.0	4.5
11	15.5	14.0	11.5	10.5	5.5	5.0	5.0	4.0	8.5	6.5	7.5	5.0
12	15.5	13.5	12.0	10.5	5.5	4.5	6.0	4.5	9.0	6.5	7.0	5.5
13	15.5	13.0	11.0	10.0	6.0	4.5	5.5	5.0	9.5	8.0	6.5	4.5
14	15.0	13.0	11.0	10.5	6.0	4.5	5.5	5.0	9.0	6.5	7.0	4.5
15	15.0	13.0	11.0	10.5	6.0	5.0	5.5	4.5	9.0	6.0	7.5	5.0
16	15.0	13.0	11.5	10.5	6.0	5.5	5.5	4.5	9.0	6.5	7.5	5.0
17	14.5	12.5	11.5	11.0	6.5	5.5	6.0	4.5	9.5	7.0	7.0	5.5
18	14.5	12.5	11.5	10.5	6.0	5.5	6.5	5.0	9.0	6.0	7.0	6.0
19	14.5	12.0	11.0	9.5	5.5	4.5	6.5	5.0	8.5	5.5	7.5	6.0
20	14.0	12.0	10.5	9.0	6.0	4.0	6.5	5.0	8.0	6.0	8.0	6.0
21	14.0	12.0	10.5	9.5	6.5	5.0	6.5	5.5	8.0	6.0	8.5	5.5
22	12.5	10.5	10.5	10.0	6.5	5.0	7.0	5.5	7.5	6.5	9.5	6.0
23	13.0	11.5	10.5	9.5	7.0	6.0	6.0	4.5	6.5	5.5	8.0	6.5
24	11.5	11.0	10.0	9.0	6.5	6.0	6.0	4.0	6.5	5.0	7.0	6.0
25	11.5	10.5	10.0	9.0	7.0	6.0	5.5	3.5	6.0	5.5	8.5	6.0
26	12.0	10.5	9.0	7.5	7.0	6.5	5.5	3.5	7.0	5.5	8.5	6.0
27	12.5	10.5	7.5	6.5	7.0	6.0	5.5	3.5	7.5	6.0	7.5	5.5
28	12.5	10.5	7.5	6.0	6.5	6.0	5.5	3.5	7.0	6.0	6.5	4.5
29	12.5	12.0	8.0	6.0	6.5	5.5	5.5	3.0	---	---	7.5	5.0
30	13.0	12.0	8.0	6.5	6.5	5.5	5.5	3.0	---	---	8.0	5.5
31	13.0	12.0	---	---	6.0	5.0	6.5	5.0	---	---	6.5	5.5
MONTH	16.0	10.5	13.5	6.0	7.5	4.0	7.0	2.5	9.5	4.0	9.5	4.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	5.5	10.0	8.5	12.5	10.5	18.5	15.0	17.0	12.0	18.0	14.5
2	8.5	5.5	10.5	8.0	12.0	8.0	18.5	13.0	15.5	12.5	18.0	15.0
3	9.0	5.5	9.5	7.5	12.0	9.5	15.5	12.5	16.5	12.0	18.0	15.5
4	10.0	6.5	8.0	6.5	15.0	10.5	16.0	11.5	16.5	12.0	18.5	16.0
5	10.0	6.0	7.5	6.0	17.0	11.5	14.5	10.5	16.5	12.0	17.5	16.0
6	9.5	6.0	9.5	6.0	17.0	13.0	17.5	11.0	16.5	12.0	19.0	16.0
7	9.5	6.0	9.0	6.5	15.0	13.0	19.0	12.5	15.5	12.0	18.5	16.0
8	8.5	6.5	12.0	7.0	15.5	11.5	18.5	13.5	17.0	12.0	18.5	16.0
9	8.0	5.5	10.0	8.0	15.0	11.0	17.0	13.5	16.5	12.0	18.5	15.5
10	8.5	5.5	8.5	7.5	15.0	11.5	18.5	13.0	16.5	12.0	18.5	16.0
11	10.5	7.0	9.5	7.0	15.0	11.5	19.5	13.5	17.0	12.0	18.5	16.0
12	10.5	6.5	10.5	6.5	16.0	12.0	17.5	14.5	17.0	12.0	19.0	16.0
13	9.0	7.0	10.5	7.5	16.0	12.0	18.5	12.5	16.5	12.5	19.0	16.0
14	9.0	5.0	10.0	8.0	16.5	12.5	19.0	13.5	17.0	12.5	17.5	16.0
15	9.0	6.5	9.0	7.5	16.0	12.0	20.0	14.5	15.5	12.5	17.0	15.5
16	9.0	7.0	9.0	6.5	17.0	12.0	18.5	14.0	16.0	12.5	17.0	14.5
17	8.5	5.0	8.5	7.0	16.5	12.5	18.5	13.0	16.0	12.5	17.0	14.0
18	8.0	4.5	9.5	7.5	16.5	13.0	15.5	12.0	15.5	13.0	17.0	14.5
19	8.5	4.5	11.5	7.5	17.0	13.5	15.5	11.0	15.5	13.0	16.0	14.5
20	9.0	5.5	12.0	8.0	15.0	13.0	16.5	11.0	15.0	13.0	15.5	13.5
21	9.0	7.0	12.0	9.5	18.0	12.5	16.5	11.5	15.0	13.0	16.0	13.5
22	9.0	6.5	10.5	8.0	19.5	14.5	16.5	11.0	15.5	13.0	15.5	12.5
23	9.5	7.0	9.5	8.0	19.0	15.0	15.0	11.5	15.5	13.0	14.0	13.0
24	11.0	7.5	11.5	8.0	18.0	13.0	16.5	11.5	15.5	14.0	14.5	13.0
25	9.5	7.5	10.5	8.0	19.5	13.5	15.5	12.0	15.0	13.0	14.5	13.0
26	10.5	6.5	10.5	8.5	19.0	14.5	16.0	11.5	16.5	14.0	15.5	12.5
27	10.5	6.5	10.0	7.0	19.0	14.5	16.5	11.5	16.5	15.0	14.0	13.0
28	9.5	7.5	11.5	7.5	19.5	14.0	15.5	11.5	17.5	15.5	14.0	12.5
29	10.5	8.0	12.0	8.0	19.0	14.5	15.5	11.0	17.5	15.0	14.0	12.0
30	11.5	8.5	12.5	8.5	18.5	14.0	16.5	11.0	17.5	15.0	14.0	12.0
31	---	---	13.5	10.0	---	---	17.0	11.5	17.0	15.0	---	---
MONTH	11.5	4.5	13.5	6.0	19.5	8.0	20.0	10.5	17.5	12.0	19.0	12.0

14149000 LOOKOUT POINT LAKE NEAR LOWELL, OR

LOCATION.--Lat 43°54'50", long 122°45'00", SE¼ sec.13, T.19 S., R.1 W., Lane County, Hydrologic Unit 17090001, in elevator house at right end of spillway section of dam on Middle Fork Willamette River, 1.5 mi (2.4 km) east of Lowell, and at mile 206.9 (332.9 km).

DRAINAGE AREA.--991 mi² (2,567 km²).

PERIOD OF RECORD.--November 1953 to current year. Prior to October 1971, published as Lookout Point Reservoir near Lowell.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Nov. 7, 1953, to Dec. 4, 1954, approximate elevations obtained from reference marks and Dec. 5, 1954, to Feb. 4, 1955, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam with concrete gate and spillway section, completed in 1954 by Corps of Engineers. Planned storage began in November 1953. Total capacity is 455,800 acre-ft (562 hm³) at elevation 929 ft (283.2 m), and usable capacity is 349,200 acre-ft (431 hm³) between elevations 819 ft (249.6 m), and 929 ft (283.2 m), top of spillway gates. Reservoir used for flood control, improvement of navigation, power generation, pollution abatement, and other purposes. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 464,900 acre-ft (573 hm³) Dec. 26, 1964, elevation, 931.09 ft (283.796 m); minimum observed since first filling, 91,450 acre-ft (113 hm³) Dec. 1, 1954, elevation, 811.00 ft (247.193 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 392,800 acre-ft (484 hm³) June 25, elevation, 913.85 ft (278.541 m); minimum, 109,300 acre-ft (135 hm³) Feb. 8, elevation, 820.35 ft (250.043 m).

Capacity table (elevation, in feet, and total contents, in acre-feet)

820	108,600	860	205,500	900	338,900
830	129,500	870	235,500	910	377,400
840	152,500	880	267,800	920	417,800
850	117,700	890	302,300	930	460,200

ELEVATION, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	888.93	861.78	828.32	825.23	821.20	824.21	848.29	875.51	907.63	911.90	902.70	901.15
2	888.15	860.60	827.99	825.51	820.95	824.80	849.41	876.70	908.18	911.60	902.46	901.35
3	887.53	859.28	827.50	825.62	820.70	825.60	850.29	878.14	908.74	911.38	902.17	901.56
4	886.91	858.10	827.19	825.49	820.68	826.24	851.21	879.72	909.25	911.06	901.90	901.78
5	886.33	856.98	826.87	825.35	820.66	826.73	852.16	881.03	909.79	910.83	901.62	902.12
6	885.75	855.75	826.61	825.18	820.62	827.30	853.35	882.22	910.38	910.51	901.36	902.35
7	885.13	854.63	826.33	824.94	820.60	828.02	854.65	883.22	910.89	910.17	901.09	902.52
8	884.57	853.50	826.15	824.74	820.55	829.30	856.34	884.12	911.33	909.88	900.81	902.62
9	883.95	852.32	826.02	824.51	820.61	831.07	859.75	884.96	911.81	909.51	900.53	902.64
10	883.37	851.21	825.84	824.29	820.65	832.30	858.84	886.32	912.10	909.23	900.24	902.68
11	882.79	849.80	825.64	824.09	820.71	833.20	859.82	887.85	912.38	908.91	900.05	902.75
12	882.20	848.50	825.45	823.87	820.76	834.07	860.68	889.11	912.60	908.62	899.62	902.80
13	881.80	847.36	825.25	823.82	820.82	835.02	861.65	890.27	912.78	908.28	899.31	902.88
14	881.38	846.22	825.09	823.80	820.93	835.70	862.56	891.28	912.95	907.95	899.02	902.98
15	880.76	845.30	824.89	823.71	820.96	836.23	863.32	892.35	913.08	907.53	898.80	902.96
16	880.03	844.70	824.63	823.55	821.18	836.60	864.18	893.50	913.17	907.08	898.91	902.72
17	879.51	843.42	824.41	823.36	821.17	837.05	864.96	894.87	913.27	906.63	898.78	902.30
18	878.86	841.70	824.21	822.80	821.23	837.58	865.67	896.15	913.41	906.28	898.70	901.88
19	878.24	840.00	823.95	822.44	821.22	838.19	866.28	897.13	913.46	906.01	898.63	901.42
20	877.58	838.60	823.72	822.25	821.35	838.94	866.84	898.05	913.51	905.73	898.61	900.90
21	876.56	837.15	823.75	822.09	821.40	839.61	867.47	898.98	913.56	905.47	898.60	900.50
22	875.18	835.75	823.79	821.88	821.62	840.31	868.08	899.80	913.59	905.24	898.57	900.00
23	873.81	834.25	823.89	821.65	821.87	841.13	858.71	900.79	913.62	905.03	898.56	899.35
24	872.38	832.97	824.01	821.40	822.00	841.85	869.51	901.84	913.72	904.80	898.92	898.86
25	871.34	832.28	824.08	821.30	822.12	842.49	870.53	902.68	913.53	904.58	899.23	899.32
26	870.13	831.50	824.22	821.34	822.30	843.28	871.43	903.65	913.25	904.32	899.66	897.72
27	868.72	830.73	824.46	821.29	822.58	843.94	872.24	904.48	912.97	904.09	899.91	896.80
28	867.27	829.82	824.61	821.26	823.49	844.86	873.02	905.24	912.67	903.83	900.17	896.10
29	865.88	829.15	824.79	821.21	---	845.71	873.80	905.89	912.40	903.60	900.44	895.42
30	864.42	828.69	824.92	821.19	---	846.46	874.60	906.46	912.14	903.35	900.76	895.12
31	862.97	---	825.07	821.15	---	847.18	---	907.00	---	902.98	901.08	---
MEAN	878.47	844.40	825.28	823.24	821.25	835.97	862.65	892.88	912.07	907.30	900.04	900.75
MAX	888.93	861.78	828.32	825.62	823.49	847.18	874.60	907.00	913.72	911.90	902.70	902.98
MIN	862.97	828.69	823.72	821.15	820.55	824.21	848.29	875.51	907.63	902.98	898.56	895.12
(†)	214,200	126,600	118,900	110,900	115,600	157,800	250,100	365,700	385,900	350,200	343,000	320,800
(‡)	-87,200	-87,600	-7,700	-8,000	+4,700	+42,200	+92,300	+115,600	+20,200	-35,700	-7,200	-22,200

CAL YR 1976 MEAN 883.09 MAX 927.09 MIN 823.72 AC-FT‡ -12,500
WTR YR 1977 MEAN 867.26 MAX 913.72 MIN 820.55 AC-FT‡ +19,400

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14150000 MIDDLE FORK WILLAMETTE RIVER NEAR DEXTER, OR

LOCATION.--Lat 43°56'45", long 122°50'10", in SE¼NW¼ sec.5, T.19 S., R.1 W., Lane County, Hydrologic Unit 17090001, on right bank 0.6 mi (1.0 km) upstream from Lost Creek, 2.0 mi (3.2 km) northwest of Dexter, 2.6 mi (4.2 km) downstream from Dexter Dam, and at mile 201.2 (323.7 km).

DRAINAGE AREA.--1,001 mi^2 (2,593 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to September 1954 (published as "at Lowell"), June 1955 to current year. Monthly discharge only for October 1954 to June 1955, published in WSP 1738.

REVISED RECORDS.--WSP 1638: 1948(P).

GAGE.--Water-stage recorder. Datum of gage is 592.30 ft (180.533 m) above mean sea level (levels by Corps of Engineers). Prior to Aug. 23, 1950, nonrecording gage and Aug. 23, 1950, to Sept. 30, 1954, at site 4.0 mi (6.4 km) upstream at different datum, and June 9, 1955, to Feb. 18, 1977, at datum 3.00 ft (0.914 m) higher.

REMARKS.--Water-discharge records good. Flow regulated since 1953 by Lookout Point Lake (see station 14149000), since 1955 by Dexter Lake (re-regulating), and since 1961 by Hills Creek Lake (see station 14145100).

AVERAGE DISCHARGE.--31 years, 3,202 ft^3/s (90.68 m^3/s), 2,320,000 acre-ft/yr (2.86 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,600 ft^3/s (1,770 m^3/s) Jan. 18, 1953, gage height, 12.46 ft (3.798 m), site and datum then in use, from rating curve extended above 33,000 ft^3/s (935 m^3/s); minimum daily, 100 ft^3/s (2.83 m^3/s) Nov. 25, 1960.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 13.9 ft (4.24 m) Dec. 28, 1945, former site and datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,460 ft^3/s (126 m^3/s) Oct. 29; maximum gage height, 4.79 ft (1.460 m) Aug. 17; minimum discharge, 323 ft^3/s (9.15 m^3/s) May 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3630	4040	1360	1110	803	596	424	369	727	1140	1620	1730
2	3400	3980	1340	1110	796	602	424	369	714	1150	1620	1600
3	3200	3630	1410	1130	754	614	418	374	701	1140	1660	1560
4	3260	3070	1540	1140	789	614	424	348	701	1150	1690	1610
5	3020	3120	1370	1140	866	608	465	358	695	1160	1690	1660
6	3040	3070	1220	1150	850	602	465	348	695	1180	1690	1670
7	3040	3050	1310	1150	776	602	465	343	720	1180	1680	1720
8	3050	3070	1340	1150	750	571	478	338	733	1180	1690	1940
9	3020	2970	1310	1150	700	564	472	338	733	1180	1680	1990
10	3130	3290	1250	1150	650	626	465	338	740	1180	1680	1990
11	3100	3080	1230	1150	650	620	465	348	740	1180	1680	1990
12	3100	3040	1230	1150	650	701	465	396	727	1170	1680	1990
13	2840	2890	1230	1150	650	620	472	401	740	1200	1680	2090
14	2670	2840	1230	1150	650	614	472	407	747	1200	1690	2050
15	3240	2840	1230	1150	600	614	465	418	714	1340	1940	1840
16	3100	2810	1230	1150	572	583	465	430	720	1430	1950	1840
17	3120	3600	1190	1150	600	490	465	539	720	1440	1950	1880
18	3260	3480	1190	1130	602	447	465	644	714	1440	1950	2000
19	3240	3320	1200	1110	596	436	472	688	714	1470	1950	1930
20	3160	3360	1230	1110	590	430	465	669	714	1550	1960	1940
21	3640	3320	1240	1080	596	418	465	657	727	1610	1960	1880
22	3690	3440	1250	994	596	418	459	657	762	1610	1960	1770
23	3740	3050	1160	1000	596	430	424	657	740	1620	1970	2150
24	3630	2670	1100	1000	602	430	385	651	874	1620	1850	2270
25	3840	1920	1100	890	608	430	374	638	1230	1620	1570	2170
26	3880	1720	1100	810	608	430	369	657	1150	1620	1370	2130
27	3820	1730	1140	810	602	436	363	762	1140	1620	1610	2410
28	3850	1830	1120	803	596	436	369	851	1150	1620	1620	2910
29	4010	1880	1110	796	---	436	369	791	1150	1620	1680	2790
30	3950	1430	1090	796	---	430	369	769	1140	1620	1710	2250
31	3680	---	1100	796	---	424	---	747	---	1620	1730	---
TOTAL	104350	87540	38150	32555	18698	16272	13117	16300	24472	42860	54160	59750
MEAN	3366	2918	1231	1050	668	525	437	526	816	1383	1747	1992
MAX	4010	4040	1540	1150	866	701	478	851	1230	1620	1970	2910
MIN	2670	1430	1090	796	572	418	363	338	695	1140	1370	1560
AC-FT	207000	173600	75670	64570	37090	32280	26020	32330	48540	85010	107400	118500

CAL YR 1976 TOTAL 986810 MEAN 2696 MAX 11900 MIN 1090 AC-FT 1957000
WTR YR 1977 TOTAL 508224 MEAN 1392 MAX 4040 MIN 338 AC-FT 1008000

14150000 MIDDLE FORK WILLAMETTE RIVER NEAR DEXTER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1955 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 18.5°C Sept. 17, 21, 22, 24, 25, 1963; minimum, 3.5°C on several days in 1957, 1969, and Jan. 9-11, 1973.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 16.5°C Oct. 11-14, Sept. 6, 7, 11-13, 16; minimum recorded, 4.5°C Jan. 27-30, Mar. 17.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.0	15.5	14.5	13.5	10.5	9.5	6.5	6.5	6.0	5.0	7.5	6.0
2	15.5	15.0	14.5	14.5	10.5	9.5	6.5	6.0	5.0	5.0	6.5	6.0
3	16.0	15.0	14.5	14.5	10.0	9.5	6.5	6.0	6.0	5.0	8.0	6.0
4	16.0	15.0	15.0	13.0	9.5	9.5	6.5	6.0	6.5	5.0	9.0	5.5
5	16.0	15.0	14.0	13.0	9.5	9.0	6.5	5.5	6.0	5.0	10.0	5.5
6	16.0	15.0	14.0	13.5	9.5	8.5	6.5	5.5	6.5	5.0	7.5	5.5
7	16.0	15.0	14.0	13.5	10.0	8.5	6.0	5.0	6.0	5.0	8.0	6.0
8	16.0	15.5	14.0	13.0	9.5	8.5	6.0	5.0	6.5	5.0	7.5	6.0
9	16.0	15.5	13.5	13.0	9.5	8.5	6.0	5.0	7.0	5.0	7.0	5.0
10	16.0	15.5	13.5	13.0	9.0	8.0	5.5	5.0	7.0	5.0	8.0	6.0
11	16.5	15.5	13.5	13.0	8.5	8.0	5.0	5.0	6.5	5.5	9.0	6.0
12	16.5	15.5	13.5	13.0	9.0	7.5	5.5	5.0	7.0	5.5	8.0	6.0
13	16.5	15.5	13.5	13.0	8.5	7.5	5.5	5.0	7.5	6.0	9.5	6.0
14	16.5	15.0	13.5	13.0	8.0	7.5	6.0	5.0	7.5	5.5	8.5	5.5
15	16.0	15.5	13.0	13.0	8.5	7.5	6.0	5.0	9.5	5.5	9.5	5.5
16	16.0	15.0	13.5	13.0	8.0	7.0	6.0	5.0	10.0	5.0	10.0	5.0
17	16.0	15.0	13.5	12.5	8.0	7.0	6.0	5.0	8.5	5.5	10.5	4.5
18	16.0	15.0	13.0	12.5	8.0	7.0	6.0	5.0	9.5	5.0	---	---
19	15.5	15.0	13.0	13.0	7.5	7.0	6.5	5.0	9.0	5.0	---	---
20	15.5	15.0	13.0	12.5	8.0	7.0	6.0	5.0	8.0	5.5	---	---
21	15.5	15.0	12.5	12.5	7.5	6.5	6.0	5.5	9.0	6.0	---	---
22	15.5	15.0	12.5	12.5	7.0	6.5	6.5	5.0	7.5	5.5	---	---
23	15.0	14.5	12.5	12.0	7.5	6.5	6.0	5.0	7.0	5.5	---	---
24	15.0	14.5	12.0	12.0	7.0	6.5	6.0	5.0	6.5	6.0	---	---
25	15.0	14.5	12.0	11.5	7.0	6.5	6.5	5.0	6.5	5.5	---	---
26	15.0	14.0	12.0	11.0	7.0	6.5	6.5	5.0	7.5	6.0	---	---
27	15.0	14.0	12.0	10.5	7.0	6.5	6.0	4.5	8.5	6.0	---	---
28	14.5	14.0	11.5	10.5	7.0	6.5	6.0	4.5	8.0	6.0	---	---
29	14.5	14.5	11.0	10.0	7.0	6.5	5.5	4.5	---	---	---	---
30	14.5	14.0	11.0	10.0	6.5	6.5	5.5	4.5	---	---	---	---
31	15.0	13.5	---	---	6.5	6.5	5.5	5.0	---	---	---	---
MONTH	16.5	13.5	15.0	10.0	10.5	6.5	6.5	4.5	10.0	5.0	10.5	4.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	10.5	10.0	12.5	10.5	14.0	11.5	15.0	12.0	16.0	13.5
2	---	---	13.5	10.0	13.0	10.0	14.0	11.5	14.5	12.0	15.5	14.0
3	---	---	12.0	10.0	11.5	10.5	13.0	11.5	15.0	12.0	16.0	14.5
4	---	---	11.5	9.5	13.5	10.5	13.0	11.5	15.0	12.0	16.0	14.5
5	---	---	12.0	9.5	14.0	10.5	13.5	11.5	15.0	12.0	15.5	14.5
6	13.5	9.0	13.5	10.0	14.5	11.0	14.5	11.5	15.0	12.5	16.5	14.0
7	13.5	9.5	12.5	9.5	13.5	11.0	14.5	11.5	15.0	12.0	16.5	14.0
8	11.5	10.0	15.0	9.5	14.0	11.0	14.0	11.5	15.0	12.5	16.0	14.5
9	12.0	9.5	13.5	10.5	14.0	11.0	12.5	11.5	15.5	12.5	16.0	14.5
10	12.5	9.5	11.5	10.5	14.0	11.0	14.0	11.5	15.5	12.0	16.0	14.5
11	12.5	10.0	13.5	10.0	12.5	11.5	14.5	11.5	15.5	13.0	16.5	14.5
12	13.0	9.5	14.0	10.0	14.0	11.0	12.5	11.5	15.5	13.0	16.5	14.5
13	11.5	10.0	13.0	10.5	14.5	11.0	14.0	11.0	15.5	13.0	16.5	15.0
14	13.5	9.5	13.0	10.5	14.5	11.0	14.5	11.5	15.5	13.0	15.5	15.0
15	12.0	10.0	11.5	10.0	14.5	11.0	14.5	11.5	15.5	13.5	15.5	15.0
16	13.5	10.5	13.0	10.0	15.0	11.0	14.5	11.5	16.0	13.5	16.5	15.0
17	13.5	9.5	12.0	10.0	14.5	11.0	14.5	12.0	16.0	13.5	16.0	15.0
18	13.0	10.0	12.5	10.0	14.0	11.5	13.0	12.0	16.0	14.0	15.5	15.0
19	13.5	10.0	13.0	10.0	14.0	11.5	14.0	11.5	15.5	14.0	15.5	15.0
20	13.0	10.0	12.5	10.0	12.5	11.5	14.5	11.5	14.5	13.5	15.5	15.0
21	12.5	10.5	12.5	10.5	15.0	11.5	14.5	11.5	14.5	13.5	16.0	14.5
22	13.0	10.0	11.0	10.0	14.5	11.5	14.5	11.5	15.5	13.5	16.0	14.5
23	14.0	10.5	11.5	10.0	15.0	11.5	14.0	11.5	15.5	13.5	15.0	15.0
24	13.5	10.5	12.5	10.0	15.0	11.5	14.5	12.0	15.0	14.0	15.5	15.0
25	12.0	10.5	12.0	10.0	14.5	12.0	14.0	12.0	14.5	14.0	15.5	15.0
26	15.5	10.0	12.5	10.0	15.0	11.5	14.5	12.0	15.0	14.0	16.0	15.0
27	13.5	9.5	11.5	10.0	15.0	11.5	14.5	12.0	15.5	14.0	15.0	14.5
28	12.0	9.5	13.0	10.5	15.0	11.5	14.0	12.0	15.5	14.0	15.0	15.0
29	12.5	10.0	13.0	10.0	14.5	11.5	14.5	12.0	15.5	14.0	15.0	15.0
30	12.5	10.0	12.0	10.5	14.5	11.5	14.5	12.0	16.0	14.0	15.5	14.5
31	---	---	13.0	10.5	---	---	15.0	12.0	16.0	14.0	---	---
MONTH	15.5	9.0	15.0	9.5	15.0	10.0	15.0	11.0	16.0	12.0	16.5	13.5

14150300 FALL CREEK NEAR LOWELL, OR

LOCATION.--Lat 43°58'15", long 122°38'15", in SW¼ sec.25, T.18 S., R.1 E., Lane County, Hydrologic Unit 17090001, on right bank 0.1 mi (0.2 km) downstream from North Fork, 8.0 mi (12.9 km) northeast of Lowell, and at mile 14.4 (23.2 km).

DRAINAGE AREA.--118 mi² (306 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 844.42 ft (257.379 m) above mean sea level.

REMARKS.--Water discharge records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--14 years, 420 ft³/s (11.89 m³/s), 48.34 in/yr (1,228 mm/yr), 304,300 acre-ft/yr (375 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,100 ft³/s (343 m³/s) Jan. 21, 1972, which may have been caused by release from breakup of temporary logjam 12 mi (19 km) upstream, gage height, 11.84 ft (3.609 m); minimum, 16 ft³/s (0.45 m³/s) Oct. 3, 4, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,860 ft³/s (52.7 m³/s) May 17, gage height, 4.88 ft (1.487 m), no peak above base of 3,500 ft³/s (99.1 m³/s); minimum, 22 ft³/s (0.62 m³/s) Aug. 17-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	242	46	58	65	547	891	215	316	70	32	60
2	36	143	44	159	55	455	771	359	271	69	31	47
3	47	94	44	159	52	673	577	513	248	67	31	43
4	39	77	43	120	49	481	537	814	261	69	30	40
5	35	69	43	106	47	401	542	858	236	67	29	39
6	34	60	42	89	47	417	513	695	218	63	29	37
7	34	55	42	80	46	582	499	542	201	65	29	35
8	32	52	63	110	46	1120	547	442	184	60	29	32
9	32	49	134	190	44	1170	486	386	171	58	27	31
10	31	46	90	125	43	802	397	802	161	60	25	30
11	32	44	76	67	43	629	348	1020	151	56	24	29
12	31	43	70	80	43	789	316	701	143	55	24	28
13	31	43	61	209	46	624	344	509	136	56	23	28
14	30	53	56	239	46	468	316	430	127	52	24	27
15	29	198	53	161	43	382	285	477	120	49	24	28
16	29	187	52	127	42	337	288	765	116	47	23	29
17	28	116	50	110	42	302	261	1560	110	46	22	31
18	28	122	49	98	40	323	233	1270	106	47	22	35
19	27	102	46	90	39	490	215	808	102	52	22	53
20	27	89	44	84	40	562	203	603	102	46	22	73
21	27	79	43	79	52	451	195	486	104	44	24	73
22	27	73	42	74	98	464	190	413	96	42	25	58
23	28	67	47	70	112	504	187	446	90	42	24	73
24	39	61	46	67	92	442	190	401	87	42	116	248
25	230	61	46	63	90	390	198	352	84	40	71	224
26	139	58	84	60	159	334	192	434	82	40	87	164
27	76	53	122	58	261	618	169	430	79	39	58	108
28	58	50	90	56	789	613	161	472	76	36	56	268
29	52	49	77	55	---	552	156	409	74	36	129	224
30	47	49	70	52	---	509	174	352	71	35	161	201
31	58	---	63	56	---	486	---	305	---	34	87	---
TOTAL	1427	2484	1878	3151	2571	16917	10381	18269	4323	1584	1360	2396
MEAN	46.0	82.8	60.6	102	91.8	546	346	589	144	51.1	43.9	79.9
MAX	230	242	134	239	789	1170	891	1560	316	70	161	268
MIN	27	43	42	52	39	302	156	215	71	34	22	27
CFSM	.39	.70	.51	.86	.78	4.63	2.93	4.99	1.22	.43	.37	.68
IN.	.45	.78	.59	.99	.81	5.33	3.27	5.76	1.36	.50	.43	.76
AC-FT	2830	4930	3730	6250	5100	33550	20590	36240	8570	3140	2700	4750

CAL YR 1976 TOTAL 125475 MEAN 343 MAX 8490 MIN 27 CFSM 2.91 IN 39.56 AC-FT 248900
WTR YR 1977 TOTAL 66741 MEAN 183 MAX 1560 MIN 22 CFSM 1.55 IN 21.04 AC-FT 132400

14150300 FALL CREEK NEAR LOWELL, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1963 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 24.5°C Aug. 11, 1971; minimum, 0.0°C Dec. 7, 8, 1972, Jan. 8, 1973, Feb. 6, 1976, Jan. 6-10, 27-30, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 23.5°C Aug. 13; minimum, 0.0°C Jan. 6-10, 27-30.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.0	13.0	10.0	9.0	2.5	1.5	3.0	2.0	3.5	3.0	6.5	5.5
2	14.0	13.0	10.5	10.0	2.0	1.5	4.5	3.0	3.0	2.0	6.0	5.5
3	12.5	11.0	10.0	9.5	2.5	1.5	4.0	3.5	2.5	1.5	6.5	5.5
4	11.0	9.5	9.5	8.5	3.0	2.5	4.5	4.0	3.0	1.5	7.0	5.5
5	11.0	9.0	8.5	7.5	3.5	3.0	4.0	1.5	3.5	2.0	7.0	5.0
6	11.5	9.5	8.5	7.5	3.0	2.5	1.5	0.0	4.0	3.0	7.0	5.5
7	12.5	10.0	9.0	7.5	2.5	2.0	0.5	0.0	4.0	2.5	7.0	6.5
8	12.5	11.0	9.5	8.5	4.0	2.5	0.0	0.0	4.0	3.0	7.0	6.5
9	12.0	10.5	8.5	7.5	5.0	4.0	0.0	0.0	5.0	3.5	7.5	6.0
10	11.5	10.5	8.5	7.0	4.5	3.5	1.0	0.0	6.5	4.5	6.5	5.5
11	12.5	11.0	8.0	7.5	3.5	3.0	2.5	1.0	7.0	5.5	7.0	5.5
12	11.5	10.0	7.5	6.5	3.0	2.5	3.5	2.5	7.5	6.0	7.5	6.0
13	11.0	9.5	6.5	5.5	3.0	2.5	4.5	3.5	8.5	7.5	6.5	5.5
14	10.5	9.0	7.5	6.5	3.5	2.5	4.5	3.5	8.0	6.5	6.5	5.0
15	10.0	8.5	9.5	7.5	4.0	3.5	4.0	3.5	7.0	5.5	6.5	5.0
16	9.5	8.0	9.5	9.5	4.5	3.5	4.5	3.5	7.0	5.5	7.0	4.5
17	8.5	7.5	10.0	9.5	4.0	3.5	5.0	4.0	7.0	6.0	6.5	5.0
18	8.0	6.5	10.0	10.0	4.5	4.0	5.0	4.5	6.5	5.0	7.5	6.0
19	8.0	6.5	10.0	8.0	4.0	2.0	4.5	4.0	6.0	4.5	8.5	7.5
20	7.5	6.0	8.0	6.5	2.0	1.5	4.0	3.5	6.5	5.5	8.5	7.0
21	7.5	6.0	7.5	6.5	2.0	1.0	4.5	4.0	6.5	5.5	9.0	6.5
22	7.5	6.5	8.0	7.5	2.5	1.5	5.0	4.0	6.5	6.0	9.5	6.5
23	8.0	6.5	8.0	6.5	3.5	2.5	3.5	3.0	6.0	4.5	9.0	7.5
24	7.5	7.0	6.5	5.5	3.5	2.5	2.5	2.0	5.5	5.0	8.0	6.5
25	8.5	7.5	7.0	6.5	4.0	3.0	1.5	1.0	5.5	5.0	8.5	7.0
26	8.5	7.5	6.5	4.5	5.0	4.0	1.5	0.5	6.0	5.0	9.0	7.0
27	7.5	6.5	4.0	2.0	5.5	5.0	1.5	0.0	7.0	6.0	8.5	6.5
28	7.5	6.0	2.0	1.5	5.0	4.0	1.5	0.0	7.0	6.5	7.0	5.5
29	7.5	7.0	2.0	1.5	4.5	4.0	1.5	0.0	---	---	7.5	6.0
30	8.5	7.5	2.5	1.5	4.5	3.5	1.5	0.0	---	---	8.5	6.0
31	9.0	8.0	---	---	3.5	2.5	3.0	1.5	---	---	7.0	6.0
MONTH	15.0	6.0	10.5	1.5	5.5	1.0	5.0	0.0	8.5	1.5	9.5	4.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	7.0	11.5	10.5	12.5	11.0	19.0	16.0	21.0	16.5	16.0	13.0
2	9.0	7.0	11.5	9.5	12.5	9.5	18.5	15.0	21.0	18.0	16.0	13.5
3	9.5	6.5	10.5	8.5	12.0	11.0	16.0	14.5	21.0	17.5	17.5	16.0
4	10.5	7.0	8.5	7.0	14.0	11.0	15.0	13.5	21.5	17.5	19.0	14.5
5	10.5	7.0	8.5	7.0	16.0	11.5	15.0	12.5	22.0	17.5	18.0	14.0
6	11.0	8.0	9.5	7.0	17.0	14.0	---	12.5	21.5	17.5	17.0	15.0
7	11.5	8.0	9.0	6.5	16.0	14.5	---	---	21.0	17.5	---	---
8	10.5	8.5	11.0	7.0	16.0	13.0	18.5	---	21.0	17.5	---	---
9	8.5	7.5	10.0	8.0	15.5	12.5	16.0	14.0	21.0	17.0	---	---
10	9.0	6.5	9.5	8.0	15.0	12.5	17.5	12.5	21.0	17.5	---	---
11	10.5	8.0	9.5	7.5	14.5	12.5	19.0	14.0	22.0	18.0	---	---
12	10.5	7.0	10.5	7.0	14.5	11.5	16.5	15.0	22.0	18.5	---	---
13	10.5	8.5	10.5	8.5	16.5	12.5	17.5	13.0	23.5	19.0	17.0	15.0
14	9.0	7.0	10.0	9.0	16.5	13.0	18.5	14.0	22.0	18.5	15.5	14.5
15	10.0	8.0	9.5	8.0	16.0	12.5	19.5	14.5	21.5	18.5	14.5	14.0
16	10.0	8.5	8.5	7.0	17.0	12.5	19.5	15.5	22.0	18.5	14.5	13.0
17	9.0	6.0	8.5	7.5	16.5	13.5	20.0	16.0	22.0	19.0	14.0	13.0
18	8.0	6.0	9.5	8.0	16.5	14.0	17.5	16.5	22.0	19.0	14.0	13.0
19	9.0	6.0	11.5	8.0	17.0	14.5	19.0	14.5	21.5	18.0	14.0	13.5
20	9.5	7.0	11.5	8.5	15.5	14.0	19.5	15.5	19.5	17.5	14.0	13.0
21	10.0	8.5	12.5	10.0	18.0	13.5	19.5	15.0	18.5	17.5	13.5	12.5
22	10.0	8.5	11.0	9.0	19.5	15.5	20.5	15.5	20.5	16.5	13.0	11.5
23	12.0	9.5	10.0	8.5	19.5	15.5	19.5	16.0	19.0	16.0	12.0	11.5
24	12.5	10.0	11.0	8.5	19.0	14.5	20.5	16.0	17.5	16.0	12.5	11.5
25	12.0	10.0	10.5	8.5	19.5	16.0	19.0	16.5	16.0	15.0	12.5	11.5
26	12.0	9.0	10.5	9.0	19.5	15.0	20.0	16.5	16.0	14.5	12.0	11.0
27	12.0	9.0	9.5	8.0	19.5	15.5	20.5	16.0	16.5	15.0	12.0	11.5
28	11.0	9.5	11.0	8.0	20.0	15.0	19.5	16.0	16.5	15.5	12.0	12.0
29	12.5	10.0	11.5	8.0	19.0	15.5	19.5	15.0	16.5	15.5	12.0	11.5
30	13.0	11.0	12.0	9.0	19.0	15.0	19.5	15.0	16.5	15.5	12.0	11.0
31	---	---	13.0	10.5	---	---	21.0	16.0	16.5	14.0	---	---
MONTH	13.0	6.0	13.0	6.5	20.0	9.5	21.0	12.5	23.5	14.0	19.0	11.0

14150800 WINBERRY CREEK NEAR LOWELL, OR

LOCATION.--Lat 43°54'50", long 122°41'15", in NE¼SE¼ sec.16, T.19 S., R.1 E., Lane County, Hydrologic Unit 17090001, on right bank 0.9 mi (1.4 km) upstream from Nelson Creek, 4.6 mi (7.4 km) east of Lowell, and at mile 4.4 (7.1 km).

DRAINAGE AREA.--43.9 mi² (113.7 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 863.70 ft (263.256 m) above mean sea level (Corps of Engineers bench mark).

REMARKS.--Water-discharge records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--14 years, 121 ft³/s (3.427 m³/s), 37.43 in/yr (951 mm/yr), 87,660 acre-ft/yr (108 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft³/s (127 m³/s) Dec. 22, 1964, gage height, 8.07 ft (2.460 m); minimum, 1.5 ft³/s (0.042 m³/s) Sept. 4, 5, 8-10, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 846 ft³/s (24.0 m³/s) May 17, gage height, 3.67 ft (1.119 m), no peak above base of 1,000 ft³/s (28.3 m³/s); minimum, 4.5 ft³/s (0.13 m³/s) Aug. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	65	12	15	17	118	340	90	126	16	6.7	14
2	8.3	43	11	41	15	110	288	164	110	15	6.7	11
3	13	29	11	45	14	208	209	245	99	15	6.4	9.5
4	9.6	23	11	36	13	159	193	366	97	15	6.2	9.1
5	8.3	18	10	31	13	131	195	370	87	15	6.2	9.1
6	7.9	17	9.6	26	13	126	190	322	82	14	6.2	8.7
7	7.6	15	9.6	29	12	151	190	252	76	13	5.9	8.0
8	7.3	14	18	38	12	251	227	198	68	13	5.9	7.3
9	7.3	13	45	34	12	333	198	177	61	12	5.7	7.0
10	7.3	12	30	25	11	248	157	351	55	13	5.7	6.7
11	7.3	12	25	18	11	198	137	429	49	12	5.2	6.4
12	7.3	11	23	24	11	209	122	305	46	12	5.2	6.4
13	7.0	11	19	73	12	172	137	218	42	12	4.9	6.2
14	6.7	14	17	90	12	139	124	182	38	11	4.9	5.9
15	6.4	37	15	63	11	112	114	212	35	11	4.9	6.2
16	6.4	35	15	49	11	97	116	326	32	9.9	4.9	6.4
17	6.4	27	15	41	11	85	101	673	31	9.5	4.7	6.7
18	6.1	38	14	36	10	84	90	537	29	9.9	4.7	7.0
19	6.1	31	13	32	9.6	118	82	333	27	11	4.5	10
20	6.1	27	12	29	9.6	155	77	258	27	9.9	4.7	12
21	6.1	23	13	27	12	128	74	212	28	9.1	4.9	12
22	6.1	20	11	24	17	130	74	179	24	8.7	5.4	12
23	6.1	18	12	22	20	148	74	204	23	8.3	5.2	12
24	7.9	17	11	20	22	132	79	207	21	8.0	31	43
25	66	17	11	18	21	116	85	177	20	8.0	17	36
26	43	15	17	18	27	99	82	212	19	8.0	23	34
27	22	14	23	19	47	122	76	204	18	7.7	15	25
28	16	13	21	18	146	132	73	185	17	7.3	11	73
29	14	13	19	18	---	150	70	155	16	7.3	32	66
30	13	12	17	21	---	152	76	132	16	7.0	27	64
31	12	---	16	15	---	152	---	116	---	7.0	20	---
TOTAL	362.2	654	506.2	995	552.2	4665	4050	7991	1419	335.6	301.7	540.6
MEAN	11.7	21.8	16.3	32.1	19.7	150	135	258	47.3	10.8	9.73	18.0
MAX	66	65	45	90	146	333	340	673	126	16	32	73
MIN	6.1	11	9.6	15	9.6	84	70	90	16	7.0	4.5	5.9
CFSM	.27	.50	.37	.73	.45	3.42	3.08	5.88	1.08	.25	.22	.41
IN.	.31	.55	.43	.84	.47	3.95	3.43	6.77	1.20	.28	.26	.46
AC-FT	718	1300	1000	1970	1100	9250	8030	15850	2810	666	598	1070

CAL YR 1976 TOTAL 35396.6 MEAN 96.7 MAX 2090 MIN 6.1 CFSM 2.20 IN 29.99 AC-FT 70210
WTR YR 1977 TOTAL 22372.5 MEAN 61.3 MAX 673 MIN 4.5 CFSM 1.40 IN 18.96 AC-FT 44380

14150800 WINBERRY CREEK NEAR LOWELL, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1963 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26.5°C July 3, 1967; minimum, 0.0°C on several days in 1965, Jan. 4, 30, Feb. 2, 3, Dec. 6-17, 1972, and Jan. 5-12, 1974.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 24.0°C Aug. 2, 3, 11-13, 15, 16; minimum, 0.5°C Dec. 20, 21, Jan. 6-9, 30.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.0	13.5	10.5	9.5	---	---	3.5	2.0	4.5	3.5	6.0	5.5
2	15.0	13.5	11.5	10.0	---	---	4.5	3.5	3.5	2.0	6.0	5.5
3	13.5	12.0	11.0	10.0	---	---	4.0	3.5	3.0	1.0	6.5	5.5
4	12.0	9.5	10.0	9.0	---	---	5.0	4.0	4.0	1.5	7.5	5.5
5	12.0	8.5	9.0	7.5	---	---	4.5	1.5	4.0	2.0	7.5	5.0
6	12.5	9.5	9.5	7.5	---	---	1.0	0.5	5.0	3.0	7.0	5.5
7	13.5	10.0	10.0	7.5	---	---	1.0	0.5	4.5	2.0	7.0	6.5
8	12.5	11.0	10.0	8.5	---	---	1.0	0.5	5.0	3.0	7.0	6.5
9	12.5	10.0	8.5	7.0	---	---	1.0	0.5	6.0	3.0	6.5	5.0
10	12.5	11.0	8.5	6.5	---	---	1.0	1.0	8.0	4.5	7.0	5.0
11	13.5	12.0	9.0	7.5	---	---	2.0	1.0	8.0	5.5	7.5	5.0
12	12.0	10.0	7.5	6.0	---	---	3.5	2.0	8.5	6.0	6.5	5.0
13	11.0	9.0	7.0	5.0	---	---	5.0	3.5	10.0	8.0	6.5	5.0
14	11.0	8.5	8.5	7.0	---	---	6.5	4.0	8.5	6.0	6.5	4.5
15	10.5	7.5	10.0	8.0	---	---	5.0	4.0	7.0	5.0	7.0	4.5
16	10.0	7.5	11.0	9.5	4.5	3.5	5.0	3.5	8.0	5.0	7.0	4.0
17	9.0	6.0	11.0	10.0	6.0	3.0	5.5	4.0	8.5	6.0	6.5	4.5
18	8.5	8.0	10.5	10.0	5.0	4.0	6.0	4.5	7.5	6.5	6.5	5.0
19	8.0	5.5	10.0	7.0	4.0	1.0	5.5	4.0	7.0	6.0	7.5	6.0
20	7.5	5.5	8.0	7.0	1.5	0.5	5.0	3.5	7.5	5.0	7.0	5.5
21	7.0	5.0	8.5	6.0	1.0	0.5	6.0	4.5	7.0	5.5	8.0	5.0
22	7.0	6.0	9.0	7.0	2.0	1.0	6.0	4.0	6.0	5.5	8.0	5.5
23	8.5	6.5	8.5	6.0	4.0	2.0	4.0	3.0	5.5	4.5	7.5	6.0
24	8.0	6.5	8.5	5.0	3.0	2.0	3.0	2.0	6.0	4.0	7.0	5.5
25	9.0	7.0	8.0	6.0	4.0	2.0	2.5	1.0	5.5	5.0	7.5	5.5
26	8.5	7.0	6.0	3.5	5.0	4.0	3.0	1.0	7.0	5.0	8.0	5.5
27	8.0	6.0	3.5	2.5	5.5	4.5	1.5	1.0	8.0	6.0	7.0	6.0
28	8.5	6.0	2.5	1.5	5.5	2.5	2.0	1.0	7.0	5.0	8.5	6.0
29	9.0	7.0	3.0	1.5	6.0	5.0	1.0	1.0	---	---	8.5	6.0
30	10.0	7.5	3.0	2.5	5.0	3.5	1.5	0.5	---	---	7.0	6.0
31	10.0	8.0	---	---	5.0	4.0	4.0	2.0	---	---	6.0	6.5
MONTH	16.0	5.0	11.5	1.5	5.5	0.5	6.0	0.5	10.0	1.0	8.0	4.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

14150900 FALL CREEK LAKE NEAR LOWELL, OR

LOCATION.--Lat 43°56'40", long 122°45'20", in SW¼ sec.1, T.19 S., R.1 W., Lane County, Hydrologic Unit 17090001, in regulating tower near the center of Fall Creek Dam on Fall Creek, 2.2 mi (3.5 km) northeast of Lowell, and at mile 7.2 (11.6 km).

DRAINAGE AREA.--184 mi² (477 km²).

PERIOD OF RECORD.--January 1966 to current year. Prior to October 1971, published as Fall Creek Reservoir near Lowell.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with concrete gate and spillway section, completed in 1965 by Corps of Engineers; storage began January 1966. Total capacity is 125,100 acre-ft (154 hm³) at elevation 834 ft (254.2 m) and usable capacity is 115,500 acre-ft (142 hm³) between elevation 728 ft (221.9 m) and 834 ft (254.2 m). Reservoir used for flood control, conservation, and recreation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 123,200 acre-ft (152 hm³) May 30, 31, 1972; maximum elevation, 832.98 ft (253.892 m) May 31, 1972; minimum, no contents Nov. 7 to Dec. 6, 1969, Nov. 14-16, 1970, Nov. 18-25, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 121,500 acre-ft (150 hm³) June 16, elevation, 832.06 ft (253.612 m); minimum, 55 acre-ft (67,800 m³) Jan. 16, elevation, 678.84 ft (206.910 m).

CORRECTIONS.--Change in contents, in acre-feet, published in WRD Oreg. 1972, are in error and should not be used.

Capacity table (elevation, in feet, and total contents, in acre-feet)

670.6	0	725	8,340	785	53,120
679	59	735	13,270	795	64,390
685	366	745	19,480	805	77,880
695	1,400	755	26,130	815	97,750
705	2,850	765	33,770	825	109,200
715	5,200	775	42,580	833	123,200

ELEVATION, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	709.33	753.71	727.16	708.92	702.56	724.71	789.72	809.71	830.60	831.19	830.83	824.66
2	708.16	752.11	725.23	710.00	702.96	727.54	791.72	810.61	830.83	831.00	830.83	824.30
3	706.01	750.20	723.30	711.32	703.36	731.70	793.12	811.36	831.00	831.03	830.72	825.75
4	705.50	748.26	721.31	712.13	703.67	734.73	796.37	812.70	831.17	830.90	830.61	825.39
5	704.10	746.55	719.29	712.73	703.96	736.05	799.53	814.61	831.36	830.80	830.66	825.06
6	702.90	745.05	716.90	713.19	704.22	738.95	796.70	815.76	831.50	830.91	830.32	824.63
7	702.06	743.69	714.30	713.10	704.51	741.00	797.73	816.72	831.76	830.97	830.16	823.70
8	701.10	741.77	711.83	712.82	704.76	746.53	799.03	817.69	831.76	831.00	830.13	822.87
9	700.00	740.12	710.00	712.39	704.97	751.75	800.15	818.10	831.83	831.01	829.83	822.13
10	699.97	738.60	710.05	712.16	705.26	755.20	803.96	819.65	831.90	831.17	829.69	821.17
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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14151000 FALL CREEK BELOW WINBERRY CREEK, NEAR FALL CREEK, OR

LOCATION.--Lat 43°56'40", long 122°46'25", in NW¼SE¼ sec.2, T.19 S., R.1 W., Lake County, Hydrologic Unit 17090001, on left bank 10 ft (3 m) upstream from highway bridge, 1.1 mi (1.8 km) downstream from Fall Creek Dam, 2.3 mi (3.7 km) southeast of town of Fall Creek, and at mile 6.1 (9.8 km).

DRAINAGE AREA.--186 mi^2 (482 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October to December 1911 (published as Big Fall Creek near Fall Creek; gage heights and discharge measurements only), September 1935 to current year.

REVISED RECORDS.--WSP 1094: 1946(M). WSP 1248: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 637.81 ft (194.404 m) above mean sea level (Corps of Engineers bench mark). Oct. 1 to Dec. 31, 1911, nonrecording gage at site 0.25 mi (0.40 km) downstream at different datum. Sept. 9, 1935, to Aug. 3, 1950, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records good. Flow regulated since 1966 by Fall Creek Lake (see station 14150900). No diversion above station.

AVERAGE DISCHARGE.--42 years, 586 ft^3/s (16.60 m^3/s), 42.78 in/yr (1,087 mm/yr), 424,600 acre-ft/yr (524 hm^3/yr), adjusted for storage since January 1965.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,700 ft^3/s (700 m^3/s) Dec. 11, 1956, gage height, 18.80 ft (5.370 m), from rating curve extended above 9,700 ft^3/s (275 m^3/s); minimum, 1.5 ft^3/s (0.042 m^3/s) Oct. 7, 8, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,400 ft^3/s (39.6 m^3/s) Sept. 29, gage height, 4.68 ft (1.426 m); minimum, 6.6 ft^3/s (0.19 m^3/s) Mar. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

[illegible]

14151000 FALL CREEK BELOW WINBERRY CREEK, NEAR FALL CREEK, OR—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1950 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26.0°C July 28, 1958; minimum, 0.5°C on several days in 1962 and 1965.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 18.0°C Aug. 15; minimum recorded, 3.0°C Jan. 9.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9.0	9.0	14.5	14.5	---	---	5.5	5.0	4.5	3.5	8.5	7.0
2	9.5	9.0	14.5	14.0	---	---	5.5	5.0	4.5	3.5	9.5	7.0
3	9.5	9.5	14.0	14.0	---	---	5.0	5.0	5.0	4.0	9.5	6.5
4	10.0	9.5	14.0	14.0	---	---	5.5	5.0	5.0	4.0	8.5	7.0
5	10.0	10.0	14.0	14.0	---	---	5.0	4.0	5.5	4.0	9.0	7.5
6	10.5	10.0	14.0	14.0	---	---	5.0	4.0	5.0	4.5	8.5	7.5
7	11.0	10.5	14.0	14.0	---	---	5.0	3.5	5.5	4.5	10.0	7.0
8	11.5	[illegible]	14.0	13.5	---	---	4.5	3.5	6.0	4.5	10.0	7.0
9	12.0	[illegible]	13.5	13.5	---	---	4.5	3.0	6.5	5.0	9.0	7.0
10	12.0	[illegible]	13.5	13.5	---	---	5.0	4.0	6.5	5.5	9.5	7.0
11	13.5	[illegible]	13.5	13.5	---	---	---	---	7.5	5.5	---	7.0
12	14.0	[illegible]	13.5	13.5	---	---	---	---	7.0	6.0	---	---
13	14.5	[illegible]	13.5	13.0	---	---	---	---	7.5	6.0	---	---
14	14.5	[illegible]	13.0	13.0	---	---	---	---	9.0	6.0	9.5	---
15	15.0	[illegible]	13.0	12.0	---	---	---	---	8.0	6.0	10.0	7.0
16	15.5	[illegible]	12.0	11.5	---	---	---	---	9.0	6.5	10.0	7.0
17	15.5	[illegible]	11.5	11.5	---	---	---	---	9.0	6.0	9.5	7.5
18	16.0	[illegible]	11.5	11.5	---	---	---	---	9.0	6.0	9.0	8.0
19	16.0	[illegible]	11.5	11.5	6.0	5.5	---	---	8.5	6.5	10.5	8.0
20	16.0	[illegible]	11.5	11.0	6.0	5.5	---	---	9.0	6.5	10.5	8.0
21	16.0	[illegible]	11.0	10.5	6.0	5.5	---	---	8.5	7.5	11.0	7.5
22	16.0	[illegible]	11.0	---	5.5	5.0	---	---	8.0	7.0	11.5	7.5
23	16.0	[illegible]	---	---	5.5	5.0	---	---	7.5	6.5	10.0	8.5
24	15.5	[illegible]	---	---	5.5	4.5	---	---	7.0	6.5	10.0	8.0
25	15.5	[illegible]	---	---	5.0	4.5	---	---	8.0	6.5	10.5	8.0
26	15.0	[illegible]	---	---	5.5	5.0	---	---	8.0	7.0	10.5	8.0
27	14.0	[illegible]	---	---	5.5	5.0	---	---	8.0	7.0	10.0	8.5
28	14.5	[illegible]	---	---	5.5	5.5	---	---	7.5	6.5	9.5	7.0
29	14.5	[illegible]	---	---	5.5	5.0	---	---	---	---	10.5	8.0
30	14.0	[illegible]	---	---	5.5	5.0	---	---	---	---	11.5	7.0
31	14.0	[illegible]	---	---	5.0	5.0	4.5	---	---	---	9.0	8.0
MONTH	16.0	[illegible]	14.5	10.5	6.0	4.5	5.5	3.0	9.0	3.5	11.5	6.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

14152000 MIDDLE FORK WILLAMETTE RIVER AT JASPER, OR

LOCATION.--Lat 43°59'55", long 122°54'20", in SW¼SW¼ sec.14, T.18 S., R.2 W., Lane County, Hydrologic Unit 17090001, on right bank 25 ft (8 m) downstream from highway bridge at Jasper, 0.1 mi (0.2 km) downstream from Hills Creek, and at mile 195.0 (313.8 km).

DRAINAGE AREA.--1,340 mi^2 (3,471 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1905 to February 1912, July 1913 to March 1917, October 1952 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1288: 1907-8, 1910-12, 1914-16, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 513.45 ft (156.500 m) above mean sea level. September 1905 to February 1912 and July 1913 to March 1917, nonrecording gage at approximately same site at datum about 1.5 ft (0.46 m) higher. Oct. 22, 1952, to Sept. 30, 1953, nonrecording gage at site 25 ft (8 m) upstream at same datum.

REMARKS.--Water-discharge records excellent. Flow regulated since 1953 by Lookout Point Lake (see station 14149000), since 1961 by Hills Creek Lake (see station 14145100), and since 1966 by Fall Creek Lake (see station 14150900).

AVERAGE DISCHARGE.--34 years (water years 1906-11, 1914-16, 1953-77), 4,116 ft^3/s (116.6 m^3/s), 2,982,000 acre-ft/yr (3.68 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 94,000 ft^3/s (2,660 m^3/s) Nov. 23, 1909, gage height, 17.4 ft (5.20 m), datum then in use, from graph based on gage readings, from rating curve extended above 42,000 ft^3/s (1,190 m^3/s); minimum, 366 ft^3/s (10.4 m^3/s) Dec. 5, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,620 ft^3/s (154 m^3/s) Nov. 1, gage height, 4.92 ft (1.500 m); minimum, 524 ft^3/s (14.8 m^3/s) Apr. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4610	5230	1580	1250	879	1370	893	565	1490	1450	1860	2340
2	4420	5090	1900	1300	851	1230	879	652	1320	1460	1840	2190
3	4220	4700	1940	1360	837	1490	823	988	1230	1470	1880	2100
4	4260	4120	2100	1340	837	1270	788	1200	1240	1470	1960	2120
5	4020	4040	1930	1330	924	1110	851	1220	1170	1430	1960	2190
6	3980	3880	1760	1330	916	1040	830	1120	1100	1360	1960	2300
7	3820	3860	1440	1360	851	1190	809	972	1120	1340	1950	2490
8	3820	3880	1090	1410	830	1420	932	872	1120	1340	1960	2940
9	3700	3760	1440	1400	767	1920	974	823	1110	1340	1950	2940
10	3880	4040	1620	1410	760	1710	850	1000	1100	1350	1950	2940
11	3860	3900	1580	1400	762	1430	816	1230	1100	1340	1940	2940
12	3840	3880	1570	1400	736	1530	761	1120	1080	1340	1960	2940
13	3480	3540	1560	1670	736	1300	795	960	1070	1370	1940	3020
14	3860	3570	1530	2340	736	1240	780	879	1080	1390	1950	3070
15	3980	3610	1430	2200	660	1140	767	916	1030	1540	2220	2740
16	3860	3570	1380	2230	625	1040	736	1200	1000	1670	2240	2710
17	3860	4320	1360	1670	604	865	718	1730	1020	1700	2240	2760
18	[illegible]	4300	1340	1310	635	862	680	2240	1020	1710	2250	2980
19	3940	3960	1350	1270	630	837	682	2300	1020	1720	2270	2960
20	[illegible]	3780	[illegible]	1270	625	870	682	2200	1020	1600	2270	2960
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

14152000 MIDDLE FORK WILLAMETTE RIVER AT JASPER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1953 to December 1962, October 1963 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 20.5°C July 27, 28, 1958; minimum, 1.5°C Jan. 25-27, 1969.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 18.5°C June 16, 21, 23, 24; minimum, 3.5°C Jan. 8, 9, 14, 26-28, 30.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.0	13.5	13.5	13.0	9.0	7.5	6.5	5.5	6.5	4.5	6.5	5.5
2	14.0	13.5	13.5	13.0	9.0	7.5	6.5	5.5	5.0	4.5	6.5	6.0
3	14.5	13.5	13.5	13.0	8.5	7.5	6.5	5.0	6.0	4.5	7.5	6.0
4	15.0	13.0	13.5	13.0	8.5	7.5	6.5	5.5	6.5	4.0	8.5	5.5
5	15.0	13.0	13.0	12.5	8.0	7.5	6.0	4.5	5.5	4.0	9.0	5.5
6	15.0	13.0	13.0	12.5	8.5	7.5	5.5	4.0	7.0	4.5	8.0	6.0
7	16.0	14.0	13.0	12.5	8.5	7.5	5.5	4.0	6.0	5.0	8.0	7.0
8	15.5	14.0	13.5	12.5	8.5	7.0	5.0	3.5	6.5	4.5	7.5	7.0
9	16.0	14.0	13.0	12.0	8.5	7.0	5.0	3.5	7.5	4.5	7.0	6.0
10	15.5	14.5	13.0	12.0	7.5	6.5	5.5	4.0	8.5	5.0	8.0	5.5
11	16.5	14.5	13.0	12.0	7.5	7.0	5.0	4.5	7.5	5.5	9.0	5.5
12	16.0	14.5	12.5	11.5	7.5	7.0	5.5	4.5	8.0	5.5	8.0	6.5
13	16.5	14.5	12.5	11.5	8.0	6.5	5.5	4.0	8.5	6.0	8.5	5.5
14	16.5	14.5	12.5	11.5	7.5	6.5	5.0	3.5	8.0	6.0	8.0	5.5
15	16.0	14.5	12.5	12.0	8.0	7.0	5.5	4.0	8.5	5.0	9.5	6.0
16	16.0	14.5	13.0	12.0	8.0	7.0	5.5	4.5	9.0	5.5	9.5	6.0
17	16.0	14.5	12.5	12.0	8.0	6.5	6.5	4.5	9.5	6.0	8.5	6.5
18	16.0	14.0	12.5	12.0	8.0	7.0	6.5	5.0	9.0	5.5	8.0	7.0
19	15.5	14.0	12.0	11.5	7.5	7.0	6.5	5.0	9.0	5.0	9.5	7.0
20	16.0	14.0	11.5	11.5	7.5	6.5	6.5	5.0	8.0	6.0	10.5	7.0
21	15.5	14.0	12.0	11.0	7.0	6.0	6.5	5.0	8.5	6.0	11.5	6.5
22	15.0	14.5	11.5	11.5	6.5	6.0	6.5	5.0	8.0	6.0	12.0	7.0
23	15.0	14.0	11.5	11.0	7.0	6.0	6.0	4.5	6.5	5.5	10.0	8.0
24	14.5	14.0	11.0	11.0	6.5	5.5	6.0	4.5	6.5	5.5	10.0	7.0
25	14.0	13.5	11.5	10.5	7.0	6.0	6.5	4.0	6.5	5.5	11.0	7.0
26	14.5	13.0	10.5	9.5	7.0	6.5	6.0	3.5	7.5	6.0	10.0	7.5
27	14.5	13.0	10.5	9.0	7.5	6.5	6.0	3.5	8.0	6.5	9.5	7.0
28	14.0	13.0	10.0	9.0	6.5	6.0	6.5	3.5	7.5	6.0	9.0	6.5
29	13.5	13.5	9.5	8.5	6.5	6.0	5.0	4.0	---	---	9.5	6.0
30	14.0	13.0	9.5	8.0	6.5	6.0	5.5	3.5	---	---	11.0	6.0
31	14.0	13.0	---	---	6.5	6.0	6.0	4.5	---	---	7.0	6.5
MONTH	16.5	13.0	13.5	8.0	9.0	5.5	6.5	3.5	9.5	4.0	12.0	5.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

14152500 COAST FORK WILLAMETTE RIVER AT LONDON, OR

LOCATION.--Lat 43°38'30", long 123°05'05", in SW¼ sec.20, T.22 S., R.3 W., Lane County, Hydrologic Unit 17090002, on left bank 0.6 mi (1.0 km) north of London, 11.0 mi (17.7 km) south of Cottage Grove, and at mile 35.9 (57.8 km).

DRAINAGE AREA.--72.1 mi^2 (186.7 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1935 to current year.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 852.58 ft (259.866 m) above mean sea level (levels by Corps of Engineers). Sept. 18 to Oct. 17, 1935, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records excellent. No regulation. Diversions for irrigation above station.

AVERAGE DISCHARGE.--42 years, 203 ft^3/s (5.749 m^3/s), 38.23 in/yr (971 mm/yr), 147,100 acre-ft/yr (181 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,500 ft^3/s (354 m^3/s) Dec. 22, 1964, gage height, 13.37 ft (4.075 m), from rating curve extended above 3,200 ft^3/s (90.6 m^3/s), on basis of slope-area measurement of peak flow; minimum, 6.8 ft^3/s (0.19 m^3/s) Aug. 18, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 634 ft^3/s (18.0 m^3/s) Mar. 9, gage height, 3.40 ft (1.036 m), no peak above base of 2,100 ft^3/s (59.5 m^3/s); minimum, 6.8 ft^3/s (0.19 m^3/s) Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	109	23	24	25	274	199	57	90	24	11	19
2	18	75	22	35	23	214	191	103	86	23	11	16
3	21	52	21	49	23	303	163	217	81	23	11	15
4	19	42	21	46	22	240	145	246	83	24	10	15
5	18	36	21	48	21	179	148	292	75	23	10	15
6	17	33	21	40	22	153	145	277	65	23	10	15
7	17	30	20	40	21	194	143	208	61	22	10	14
8	16	28	29	38	21	208	105	197	57	21	9.6	13
9	16	27	70	36	20	532	163	153	54	20	9.6	13
10	17	26	49	32	20	364	131	140	52	21	8.8	13
11	18	25	33	31	20	267	113	163	50	20	8.8	13
12	18	24	29	54	20	343	103	143	49	20	7.8	13
13	17	24	27	47	20	300	115	122	46	21	8.8	12
14	16	32	25	43	20	233	113	109	42	19	8.3	12
15	15	43	24	48	20	185	99	126	41	18	8.3	13
16	15	43	24	37	20	153	97	253	39	17	8.3	14
17	15	25	23	34	19	133	88	300	37	16	7.8	16
18	15	30	23	33	19	126	81	315	37	16	7.6	18
19	15	34	22	32	19	130	75	227	37	18	8.8	36
20	15	32	21	30	20	148	70	177	37	16	8.8	33
21	15	30	21	29	36	133	67	143	37	15	9.6	27
22	15	28	21	28	75	124	64	128	36	14	10	23
23	16	27	23	27	71	113	63	145	[illegible]	14	9.6	26
24	23	26	23	26	88	153	61	148	36	13	63	71
25	180	26	22	28	73	153	63	126	29	13	33	58
26	60	24	27	25	56	135	61	176	29	14	68	53
27	39	24	23	27	119	162	54	162	27	13	30	43
28	31	23	29	26	323	210	53	143	26	13	29	143
29	29	23	29	26	---	213	53	135	26	13	27	126
30	27	23	26	27	---	236	54	117	26	12	26	73
31	26	---	26	26	---	198	---	103	---	12	26	---
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1976 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible] AC-FT [illegible]
WTR YR 1977 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible] AC-FT [illegible]

14152500 COAST FORK WILLAMETTE RIVER AT LONDON, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: July 1960 to September 1965, June 1967 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 25.5°C July 7, 1968, Aug. 11, 1971; minimum, 0.0°C Jan. 9, 1974, Feb. 5, 6, 1976, Nov. 28, 29, 1976, Jan. 6-10, 26-30, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 25.0°C Aug. 12, 16, 17; minimum, 0.0°C Nov. 28, 29, Jan. 6-10, 26-30.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	13.5	11.5	10.5	3.5	2.0	3.5	2.5	5.5	3.5	6.0	5.0
2	15.5	13.5	12.0	10.5	3.5	1.5	4.5	3.5	5.0	3.5	6.0	5.0
3	14.5	12.5	12.0	10.5	3.5	2.0	4.0	3.0	5.0	2.5	6.5	5.5
4	12.5	9.5	11.0	10.0	4.0	2.5	4.5	3.0	5.0	1.5	7.0	5.5
5	13.0	8.5	10.0	8.5	4.0	2.5	4.0	1.5	4.5	2.0	7.0	4.5
6	13.5	9.0	10.5	8.5	4.0	2.5	1.0	0.0	6.0	3.0	7.0	5.0
7	15.0	10.0	11.0	8.5	3.5	1.5	0.5	0.0	5.5	3.5	7.5	6.0
8	13.5	11.5	11.5	9.0	4.5	2.0	0.5	0.0	6.5	4.0	7.5	6.5
9	14.0	10.5	9.5	8.0	5.0	4.0	0.5	0.0	6.5	3.5	7.0	5.5
10	13.0	11.5	9.5	7.5	4.0	3.0	1.0	0.0	8.5	5.0	6.5	5.0
11	15.5	12.0	10.5	9.0	4.5	3.0	2.5	1.0	8.5	5.5	7.5	4.5
12	13.5	11.5	9.5	7.5	3.5	2.0	4.5	2.5	9.5	6.0	7.0	5.0
13	13.0	9.5	9.5	7.0	3.5	1.5	5.0	4.0	9.5	8.0	6.5	4.5
14	12.5	9.0	9.5	7.5	4.0	1.5	4.5	3.0	10.0	7.5	6.0	4.5
15	12.0	8.5	11.5	9.0	5.0	3.0	4.0	2.0	9.5	5.5	7.5	5.0
16	12.0	8.0	12.0	10.5	4.5	3.0	4.0	2.0	9.0	5.5	7.0	4.5
17	11.0	7.5	11.5	10.0	5.0	2.5	5.0	2.5	10.5	7.0	6.5	4.5
18	10.0	6.5	12.0	10.5	5.5	4.0	5.0	3.0	9.0	5.5	7.0	5.5
19	10.0	6.0	10.5	9.0	5.0	3.0	5.5	3.5	8.5	4.5	8.5	6.0
20	10.0	6.0	8.5	7.5	3.0	1.0	5.0	3.0	7.0	5.5	8.5	6.0
21	9.5	6.0	9.5	7.5	2.0	0.5	5.5	3.5	6.5	5.0	9.0	5.0
22	8.5	6.5	9.0	8.5	2.0	0.5	6.0	4.0	6.5	5.5	9.5	5.5
23	9.0	5.5	9.0	7.5	4.0	2.0	4.5	3.0	5.5	4.5	8.5	7.0
24	8.5	6.5	8.0	6.0	3.0	2.0	4.0	2.5	5.5	4.0	7.5	5.5
25	10.0	8.0	8.5	6.5	4.0	1.5	3.5	1.5	6.0	5.0	8.0	5.5
26	10.0	7.5	7.0	3.5	5.5	3.5	2.5	0.0	7.0	5.0	8.5	5.5
27	9.0	6.5	3.5	1.5	6.0	4.5	2.5	0.0	6.0	6.0	8.0	5.5
28	8.5	6.0	2.5	0.0	5.5	4.0	3.0	0.0	7.5	5.5	6.0	4.5
29	9.0	8.0	2.5	0.0	4.5	3.5	2.5	0.0	---	---	7.0	4.5
30	11.0	8.5	3.0	0.5	5.0	4.0	2.0	0.0	---	---	8.0	4.5
31	11.5	8.5	---	---	4.0	3.5	5.0	2.0	---	---	8.5	5.0
MONTH	17.0	5.5	12.0	0.0	6.0	0.5	6.0	0.0	10.5	1.5	9.5	4.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

14153000 COTTAGE GROVE LAKE NEAR COTTAGE GROVE, OR

LOCATION.--Lat 43°43'00", long 123°02'55", in NE¼ sec.28, T.21 S., R.3 W., Lane County, Hydrologic Unit 17090002, in east abutment of dam on Coast Fork Willamette River 5.8 mi (9.3 km) south of Cottage Grove, and at mile 29.7 (47.8 km).

DRAINAGE AREA.--104 mi² (269 km²).

PERIOD OF RECORD.--October 1942 to current year. Prior to October 1971, published as Cottage Grove Reservoir near Cottage Grove.

REVISED RECORDS.--WSP 1218: 1950.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway completed by Corps of Engineers in 1942; storage began Oct. 31, 1942. Capacity, 32,930 acre-ft (40.6 hm³) between elevation 719.0 ft (219.15 m), outlet conduit, and 791.0 ft (241.10 m), crest of spillway. Dead storage negligible. Reservoir used for flood control and improvement of navigation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 36,750 acre-ft (45.3 hm³) Dec. 24, 1964, elevation, 794.23 ft (242.081 m); minimum since first filling, no contents Sept. 26 to Oct. 19, 1966, and Nov. 14, 15, Nov. 20 to Dec. 8, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 32,930 acre-ft (40.6 hm³) June 8-12, elevation, 791.00 ft (241.097 m); minimum, 1,910 acre-ft (235,500 m³) Feb. 20, elevation, 745.29 ft (227.164 m).

Capacity table (elevation, in feet, and total contents, in acre-feet)

710.9	0	755	4,860	780	21,460
730	151	760	7,150	785	26,370
740	926	765	9,970	790	31,780
745	1,840	770	13,260	793	35,270
750	3,140	775	17,070		

ELEVATION, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	772.10	755.83	747.17	747.29	745.94	753.40	778.25	784.23	790.58	790.57	788.85	787.21
2	771.46	755.50	747.11	747.39	745.94	755.18	778.66	784.40	790.63	790.52	788.80	787.16
3	770.77	755.25	747.06	747.64	745.93	756.79	779.18	784.82	790.73	790.48	788.73	787.11
4	770.05	755.04	747.00	747.84	745.90	758.01	779.50	785.30	790.83	790.44	788.66	787.03
5	769.37	754.77	746.95	748.02	745.88	758.86	779.82	785.84	790.90	790.40	788.58	787.00
6	768.68	754.59	746.88	748.14	745.82	759.55	780.10	786.37	790.95	790.37	788.50	786.67
7	767.96	754.36	746.80	748.10	745.79	760.48	780.37	786.79	790.98	790.32	788.43	786.13
8	767.26	754.15	746.86	747.92	745.77	761.86	780.82	787.09	791.00	790.28	788.35	785.57
9	766.53	753.90	747.25	747.70	745.72	764.24	781.16	787.36	791.00	790.24	788.29	785.02
10	765.80	753.35	747.40	747.54	745.70	765.74	781.61	787.62	791.00	790.19	788.21	784.46
11	765.06	752.60	747.49	747.61	745.66	766.60	781.66	787.90	791.00	790.14	788.13	783.91
12	764.32	751.93	747.53	747.61	745.62	768.18	781.86	788.16	791.00	790.10	788.06	783.36
13	763.82	751.42	747.57	747.61	745.59	769.30	782.09	788.34	790.97	790.06	787.98	782.80
14	763.30	750.87	747.57	747.60	745.56	770.11	782.31	788.52	790.95	789.99	787.90	782.25
15	762.53	750.50	747.55	747.35	745.50	770.69	782.52	788.77	790.95	789.93	787.82	781.65
16	761.72	750.33	747.54	747.30	745.45	771.10	782.71	789.19	790.92	789.86	787.75	781.06
17	760.85	749.90	747.51	747.10	745.43	771.60	782.86	789.73	790.90	789.82	787.66	780.45
18	760.00	749.65	747.47	747.06	745.36	771.90	783.00	790.10	790.88	789.78	787.58	779.87
19	759.17	749.36	747.43	746.92	745.33	772.30	783.13	790.16	790.80	789.72	787.50	779.33
20	758.28	749.07	747.38	746.79	745.31	772.80	783.23	790.06	790.85	789.67	787.41	778.76
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

14153500 COAST FORK WILLAMETTE RIVER BELOW COTTAGE GROVE DAM, OR

LOCATION.--Lat 43°43'15", long 123°02'55", in NE¼ sec.28, T.21 S., R.3 W., Lane County, Hydrologic Unit 17090002, on right bank at bridge 0.3 mi (0.5 km) downstream from Cottage Grove Dam, 5.5 mi (8.8 km) south of Cottage Grove, and at mile 29.4 (47.3 km).

DRAINAGE AREA.--104 mi^2 (269 km^2).

PERIOD OF RECORD.--January 1939 to current year. Prior to October 1944, published as "near Cottage Grove."

REVISED RECORDS.--WSP 1448: 1949(M).

GAGE.--Water-stage recorder. Datum of gage is 711.00 ft (216.713 m) above mean sea level (Corps of Engineers bench mark). Jan. 1 to Oct. 12, 1939, nonrecording gage and Oct. 13, 1939, to Sept. 30, 1944, water-stage recorder at several sites and datums 0.8 mi (1.3 km) downstream.

REMARKS.--Records good. Flow regulated since 1942 by Cottage Grove Lake (see station 14153000). Small diversions for irrigation above station.

AVERAGE DISCHARGE.--38 years, 278 ft^3/s (7.873 m^3/s), 36.30 in/yr (922 mm/yr), 201,400 acre-ft/yr (248 hm^3/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,910 ft^3/s (167 m^3/s) Dec. 24, 1964, gage height, 11.83 ft (3.606 m); no flow July 5-7, 1945, and for part of Aug. 24, 1947.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 432 ft^3/s (12.2 m^3/s) Sept. 29, 30, gage height, 4.35 ft (1.326 m); minimum, 22 ft^3/s (0.62 m^3/s) Feb. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	271	123	32	37	30	34	28	30	97	44	41	41
2	268	164	32	36	30	33	28	30	67	44	41	41
3	268	116	32	34	30	34	28	30	52	44	41	41
4	268	91	32	33	30	34	28	30	60	44	41	41
5	268	80	32	34	30	34	29	30	49	44	41	41
6	265	75	32	34	30	34	29	31	49	44	41	103
7	262	75	32	50	31	35	29	31	49	44	41	302
8	262	75	33	62	29	36	30	31	49	44	41	312
9	258	75	33	62	29	38	30	31	54	44	41	302
10	258	130	33	62	29	30	30	31	64	44	41	302
11	255	171	33	64	29	26	30	31	62	43	40	244
12	252	145	33	65	29	27	30	32	66	43	39	244
13	168	116	34	67	29	27	30	32	60	43	39	246
14	166	120	33	61	29	27	30	33	56	42	39	246
15	243	99	34	57	29	27	30	33	50	42	39	243
16	240	91	34	58	29	27	30	32	50	42	39	243
17	237	88	34	58	29	27	30	75	52	42	39	243
18	234	79	34	58	29	27	30	103	47	42	38	248
19	234	77	35	58	29	27	30	219	43	42	39	248
20	231	77	35	58	29	27	30	255	43	42	39	246
21	228	77	35	58	30	27	30	173	43	42	38	243
22	225	62	35	58	29	27	30	167	43	42	39	243
23	99	53	36	58	29	27	30	160	43	42	40	243
24	68	53	36	58	30	27	30	160	43	42	41	244
25	68	53	36	60	29	29	30	160	44	43	41	244
26	68	53	36	30	32	27	30	160	44	42	41	[illegible]
27	68	53	37	30	32	27	30	160	43	42	40	[illegible]
28	68	53	37	30	30	27	30	160	43	42	40	[illegible]
29	62	43	37	30	---	28	30	160	43	42	40	[illegible]
30	77	38	37	30	---	28	30	125	43	42	40	[illegible]
31	77	---	37	30	---	28	---	109	---	42	41	---
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	271	171	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	255	[illegible]	[illegible]	[illegible]	[illegible]
MIN	68	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1976 [illegible]

WTR YR 1977 [illegible]

‡ Adjusted for change in contents in Cottage Grove Lake.

14154500 ROW RIVER ABOVE PITCHER CREEK, NEAR DORENA, OR

LOCATION.--Lat 43°44'10", long 122°52'20", in NE¼ sec.24, T.21 S., R.2 W., Lane County, Hydrologic Unit 17090002, on right bank 0.5 mi (0.8 km) upstream from Pitcher Creek, 1.2 mi (1.9 km) northwest of Dorena, and at mile 13.2 (21.2 km).

DRAINAGE AREA.--211 mi² (546 km²).

PERIOD OF RECORD.--September 1935 to current year. Prior to October 1949, published as "at Star."

GAGE.--Water-stage recorder. Datum of gage is 856.16 ft (260.958 m) above mean sea level. Sept. 16, 1935, to Oct. 17, 1938, nonrecording gage at site 450 ft (137 m) upstream at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Slight regulation caused by upstream logponds. No diversion above station.

AVERAGE DISCHARGE.--42 years, 602 ft³/s (17.05 m³/s), 38.74 in/yr (984 mm/yr), 436,100 acre-ft/yr (538 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,100 ft³/s (937 m³/s) Dec. 22, 1964, gage height, 18.19 ft (5.544 m), from rating curve extended above 12,000 ft³/s (340 m³/s), on basis of slope-area measurement of peak flow; minimum, 10 ft³/s (0.28 m³/s) Sept. 24, 25, 1951, Oct. 7, 8, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,410 ft³/s (68.3 m³/s) May 17, gage height, 6.38 ft (1.945 m), no peak above base of 7,000 ft³/s (198 m³/s); minimum daily, 20 ft³/s (0.57 m³/s) Aug. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	221	45	56	52	515	1020	399	439	60	28	60
2	35	209	43	90	48	399	990	793	378	58	28	48
3	44	137	42	135	45	474	753	1080	322	58	28	42
4	42	106	41	105	44	458	827	1260	306	59	28	40
5	38	86	41	97	43	435	940	1280	291	56	26	38
6	36	73	41	82	43	503	903	1230	277	56	26	38
7	34	66	40	77	42	700	915	1040	253	54	26	35
8	33	60	52	76	41	1500	996	897	223	58	26	31
9	33	55	128	70	41	1500	793	793	198	54	26	29
10	32	52	92	66	40	850	592	903	181	54	24	28
11	32	50	75	62	40	671	498	1100	165	51	22	27
12	31	48	75	111	40	810	458	697	155	50	22	26
13	31	47	68	190	41	671	540	698	144	52	22	25
14	30	98	61	200	43	507	519	606	133	50	22	26
15	28	110	56	192	41	406	458	657	127	48	22	25
16	28	137	96	123	41	351	478	1140	118	48	22	25
17	28	99	94	105	40	316	417	2210	110	46	20	29
18	28	108	52	96	40	306	358	1720	104	44	20	33
19	28	93	68	90	39	382	316	1160	102	42	22	47
20	27	82	65	86	39	566	294	965	97	42	22	62
21	26	73	66	76	52	488	289	821	100	40	26	59
22	27	67	63	72	89	566	296	692	93	38	28	53
23	28	63	64	67	102	671	316	770	87	38	26	51
24	34	59	66	62	108	569	355	936	80	36	60	187
25	286	58	66	56	98	511	389	758	75	36	120	173
26	248	55	68	56	113	635	328	679	73	36	135	183
27	126	51	66	53	173	768	277	876	68	36	100	171
28	96	47	63	51	203	816	266	708	65	37	67	428
29	90	46	71	60	---	698	264	579	63	37	66	495
30	61	46	63	47	---	610	309	680	61	35	69	272
31	56	---	59	48	---	592	---	626	---	35	76	---
TOTAL	1635	2448	1967	[illegible]	2271	18940	16152	28753	4888	1420	1301	2609
MEAN	52.7	81.6	63.5	[illegible]	81.1	611	538	928	163	45.8	42.0	87.0
MAX	286	221	128	200	203	1500	1020	2210	439	60	135	495
MIN	26	46	40	47	39	306	264	399	61	35	20	25
CFSM	.25	.39	.30	[illegible]	.38	2.90	2.55	4.40	.77	.22	.20	.41
IN.	.29	.43	.35	[illegible]	.40	3.34	2.85	5.07	.86	.25	.23	.46
AC-FT	3240	4860	3900	[illegible]	4500	37570	32040	57030	9700	2820	2580	5180

CAL YR 1976 TOTAL [illegible] MEAN [illegible] MAX 4700 MIN 26 CFSM [illegible] IN [illegible] AC-FT [illegible]
WTR YR 1977 TOTAL [illegible] MEAN [illegible] MAX 2210 MIN 20 CFSM [illegible] IN [illegible] AC-FT [illegible]

NOTE.--No gage-height record July [illegible] to Aug. [illegible].

14155000 DORENA LAKE NEAR COTTAGE GROVE, OR

LOCATION.--Lat 43°47'10", long 122°57'15", in SE¼ sec.32, T.20 S., R.2 W., Lane County, Hydrologic Unit 17090002, on left end of Dorena Dam on Row River, 5.0 mi (8.0 km) east of Cottage Grove, and at mile 7.61 (12.24 km).

DRAINAGE AREA.--265 mi² (686 km²).

PERIOD OF RECORD.--October 1949 to current year. Prior to October 1971, published as Dorena Reservoir near Cottage Grove.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with concrete outlet and spillway, completed in 1949 by Corps of Engineers; controlled storage began Oct. 11, 1949. Capacity, 77,580 acre-ft (95.7 hm³) between elevations 739.0 ft (225.25 m), sill of outlet gates, and 835.0 ft (254.51 m), crest of spillway. Dead storage, 18 acre-ft (22,200 m³) below elevation 739.0 ft (225.25 m). Reservoir used for flood control and improvement of navigation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 95,550 acre-ft (118 hm³) Dec. 23, 1964, elevation, 844.03 ft (257.260 m); minimum observed since first filling, 159 acre-ft (196,000 m³) Dec. 14, 1970, elevation, 743.60 ft (226.649 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 75,840 acre-ft (93.5 hm³) June 11, elevation, 834.06 ft (254.221 m); minimum, 4,420 acre-ft (5.45 hm³) Jan. 1, elevation, 764.65 ft (233.065 m).

Capacity table (elevation, in feet, and total contents, in acre-feet)

760	2,810	780	12,530	800	28,490	820	52,480
765	4,560	785	15,850	805	33,700	825	60,060
770	6,840	790	19,580	810	39,380	830	68,470
775	9,540	795	23,780	815	45,620	835	77,600

ELEVATION, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	806.12	773.23	769.98	764.65	767.24	775.40	823.07	831.55	833.05	832.66	827.70	820.72
2	805.00	773.13	769.71	765.00	767.06	777.18	824.58	831.92	833.09	832.53	827.51	820.45
3	803.87	772.65	769.25	765.55	766.86	780.11	825.67	832.18	833.21	832.39	827.32	820.18
4	802.73	771.96	768.72	765.86	766.65	782.12	826.61	832.30	833.42	832.26	827.14	819.91
5	801.54	771.42	768.23	766.08	766.42	783.62	827.21	832.37	833.60	832.13	826.93	819.63
6	800.36	771.00	767.71	766.11	766.20	785.18	827.33	832.36	833.74	831.98	826.74	819.36
7	799.14	770.54	767.18	766.16	765.96	787.28	827.30	832.25	833.88	831.83	826.55	819.06
8	797.86	770.23	766.85	766.08	765.72	791.04	827.48	832.17	833.97	831.70	826.35	818.77
9	796.62	770.13	767.19	765.98	765.58	795.27	827.49	832.14	834.02	831.55	826.16	818.47
10	795.33	769.97	767.37	765.93	765.53	797.72	827.53	832.29	834.05	831.40	825.95	818.17
11	794.03	769.82	767.34	765.91	765.52	799.60	827.67	832.57	834.06	831.25	825.74	817.86
12	792.70	769.68	767.32	766.12	765.50	801.76	827.84	832.59	834.04	831.10	825.53	817.57
13	791.88	769.52	767.27	766.72	765.50	803.39	828.07	832.52	834.01	830.93	825.31	817.26
14	791.23	769.41	767.15	767.44	765.52	804.59	828.28	832.47	833.97	830.80	825.11	816.91
15	790.03	769.66	767.00	767.95	765.51	805.68	828.43	832.61	833.96	830.66	824.82	816.62
16	788.70	770.02	766.86	768.25	765.49	806.22	828.62	832.99	833.93	830.52	824.50	816.31
17	787.50	770.20	766.68	768.42	765.50	806.88	828.77	833.70	833.92	830.36	824.19	816.02
18	786.36	770.39	766.50	768.52	765.49	807.53	828.89	833.62	833.90	830.20	823.88	815.70
19	785.13	770.52	766.29	768.61	765.46	808.31	828.98	833.03	833.86	830.02	823.57	815.37
20	783.98	770.59	766.07	768.65	765.45	809.42	829.13	832.96	833.83	829.85	823.36	815.05
21	782.92	770.60	765.81	768.65	765.59	810.35	829.29	832.80	833.76	829.70	822.96	[illegible]
22	781.83	770.56	765.57	768.62	765.96	811.34	829.45	832.76	833.69	829.52	822.63	813.62
23	780.76	770.49	765.36	768.56	[illegible]	812.01	[illegible]	832.67	833.61	829.35	822.32	[illegible]
24	779.71	770.43	765.16	768.45	[illegible]	813.02	[illegible]	[illegible]	[illegible]	829.16	[illegible]	[illegible]
25	778.67	770.42	765.03	768.34	[illegible]	814.50	830.17	[illegible]	833.39	828.99	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	772.93	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
(†)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
(‡)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1976 MEAN [illegible] MAX [illegible] MIN [illegible] (‡) [illegible]
WTR YR 1977 MEAN [illegible] MAX [illegible] MIN [illegible] (‡) [illegible]

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14155500 ROW RIVER NEAR COTTAGE GROVE, OR

LOCATION.--Lat 43°47'35", long 122°59'25", in NE¼ sec.36, T.20 S., R.3 W., Lane County, Hydrologic Unit 17090002, on right bank 1.7 mi (2.7 km) upstream from Mosby Creek, 2.1 mi (3.4 km) downstream from Dorena Dam, 3.5 mi (5.6 km) east of Cottage Grove, and at mile 5.5 (8.8 km).

DRAINAGE AREA.--270 mi^2 (699 km^2).

PERIOD OF RECORD.--January 1939 to current year. Prior to October 1947, published as "near Dorena."

GAGE.--Water-stage recorder. Datum of gage is 685.24 ft (208.861 m) above mean sea level (levels by Corps of Engineers). Jan. 5 to Oct. 12, 1939, nonrecording gage at site 180 ft (55 m) upstream at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records excellent. Flow regulated since October 1949 by Dorena Lake (see station 14155000). No diversion above station.

AVERAGE DISCHARGE.--38 years, 758 ft^3/s (21.47 m^3/s), 38.12 in/yr (968 mm/yr), 549,200 acre-ft/yr (677 hm^3/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,400 ft^3/s (606 m^3/s) Dec. 28, 1945, gage height, 18.20 ft (5.547 m); minimum, 0.20 ft^3/s (0.006 m^3/s) Sept. 25 to Oct. 7, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,660 ft^3/s (75.3 m^3/s) May 17, gage height, 5.89 ft (1.795 m); minimum, 41 ft^3/s (1.16 m^3/s) Mar. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	676	369	75	95	100	66	53	145	475	187	179	247
2	670	297	105	97	100	66	53	527	440	187	179	247
3	664	293	151	97	97	62	53	1070	306	187	179	247
4	659	293	148	97	97	55	187	1440	207	187	179	247
5	653	231	148	97	97	55	571	1600	207	183	179	247
6	648	191	148	100	97	55	934	1580	199	183	179	247
7	643	187	148	100	97	58	1050	1360	183	183	179	247
8	637	138	145	97	97	62	1100	1140	183	183	175	243
9	631	92	122	97	78	78	970	958	195	183	175	243
10	626	92	100	97	60	60	682	970	203	183	175	243
11	615	92	100	97	55	55	495	1130	203	183	175	243
12	609	92	100	97	55	57	400	1100	203	183	175	239
13	391	92	97	100	55	53	475	910	203	183	175	239
14	311	90	97	100	55	51	440	784	195	183	175	239
15	521	92	97	103	55	51	400	718	167	183	223	239
16	516	92	97	103	53	49	400	1110	145	183	263	239
17	510	92	100	103	53	49	369	2130	145	183	255	239
18	500	92	100	103	53	49	328	2490	145	183	255	239
19	495	92	100	103	53	49	297	1800	145	183	255	269
20	458	92	100	103	53	49	231	1250	167	183	255	475
21	410	92	97	103	55	49	203	1100	167	183	255	485
22	405	92	97	103	55	49	203	856	167	183	255	543
23	400	92	97	103	57	51	203	826	167	179	251	574
24	396	82	97	103	57	51	203	1070	167	179	255	558
25	391	75	97	103	57	49	183	910	167	179	251	508
26	391	75	95	103	57	49	145	806	167	179	251	543
27	387	75	95	100	58	51	145	1070	167	179	251	543
28	387	75	97	100	66	53	145	910	183	179	251	507
29	415	75	97	100	----	53	145	653	183	179	251	522
30	445	75	97	100	----	53	145	532	167	179	251	1190
31	435	----	95	100	----	53	----	495	----	179	247	----
TOTAL	15087	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	512	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	676	369	151	103	100	78	1100	2490	475	187	263	1190
MIN	311	75	75	95	53	49	53	145	145	179	175	239
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1976 [illegible]
WTR YR 1977 [illegible]

† Adjusted for change in contents in Dorena Lake.

14156500 MOSBY CREEK AT MOUTH, NEAR COTTAGE GROVE, OR

LOCATION.--Lat 43°46'35", long 122°59'55", in SE¼NW¼ sec.1, T.21 S., R.3 W., Lane County, Hydrologic Unit 17090002, on left bank 3.5 mi (5.6 km) southeast of Cottage Grove and at mile 1.0 (1.6 km).

DRAINAGE AREA.--95.3 mi² (246.8 km²).

PERIOD OF RECORD.--September 1946 to current year. Monthly discharge only September 1946, published in WSP 1318.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 676.62 ft (206.234 m) above mean sea level (Corps of Engineers bench mark).

REMARKS.--Records good. No regulation. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--31 years, 245 ft³/s (6.938 m³/s), 34.91 in/yr (887 mm/yr), 177,500 acre-ft/yr (219 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,100 ft³/s (399 m³/s) Dec. 22, 1964, gage height, 13.37 ft (4.075 m), from rating curve extended above 4,600 ft³/s (130 m³/s) on basis of slope-area measurement of peak flow; minimum, 2.8 ft³/s (0.079 m³/s) Aug. 15, 1973, Sept. 24, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,010 ft³/s (28.6 m³/s) Mar. 9, gage height, 3.43 ft (1.045 m), no peak above base of 2,500 ft³/s (70.8 m³/s); minimum daily, 6.0 ft³/s (0.17 m³/s) Aug. 12-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	137	21	26	23	615	262	73	113	20	8.0	16
2	17	131	29	36	22	315	262	143	95	20	8.0	16
3	20	82	20	42	21	615	193	355	83	19	8.0	15
4	19	61	20	56	20	369	176	667	90	18	7.5	14
5	17	47	19	56	20	286	186	487	86	19	7.5	13
6	16	40	19	47	20	236	176	562	71	19	7.5	13
7	16	35	19	43	20	292	171	387	66	18	7.5	12
8	15	31	22	53	19	567	227	296	57	17	7.0	12
9	15	29	69	66	19	896	227	227	56	18	7.0	15
10	15	27	56	36	18	642	182	197	51	17	7.0	18
11	15	26	43	31	18	429	153	236	51	15	6.5	11
12	15	26	39	53	18	470	131	216	50	15	6.0	9.6
13	15	23	36	56	18	442	136	171	46	16	6.0	9.0
14	14	20	30	51	18	329	143	166	42	15	6.0	9.0
15	14	37	29	47	18	256	131	153	39	14	6.0	9.6
16	13	36	27	42	18	202	125	330	36	13	6.0	14
17	13	43	26	38	18	163	111	715	36	12	6.0	13
18	13	43	25	38	17	163	97	467	35	12	6.0	12
19	13	39	23	36	17	146	88	316	35	13	6.0	16
20	13	36	22	33	17	163	86	227	35	12	6.0	26
21	13	33	21	30	26	166	80	190	36	11	6.0	26
22	13	30	20	30	62	163	75	153	33	9.0	6.0	21
23	13	29	21	28	76	147	73	176	31	8.6	6.6	19
24	16	27	20	27	63	137	71	167	27	8.0	[illegible]	42
25	102	26	21	25	86	186	71	171	26	8.0	[illegible]	42
26	103	[illegible]	[illegible]	[illegible]	88	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1976 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible] AC-FT [illegible]
WTR YR 1977 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible] AC-FT [illegible]

14157500 COAST FORK WILLAMETTE RIVER NEAR GOSHEN, OR

LOCATION.--Lat 43°58'50", long 122°57'55", in NW¼ sec.29, T.18 S., R.2 W., Lane County, Hydrologic Unit 17090002, on right bank at downstream side of bridge on State Highway 58, 2.5 mi (4.0 km) southeast of Goshen, and at mile 6.4 (10.3 km).

DRAINAGE AREA.--642 mi² (1,663 km²).

PERIOD OF RECORD.--August 1905 to February 1912, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1218: Drainage area. WSP 1248: 1905-12: WSP 1935: 1956.

GAGE.--Water-stage recorder. Datum of gage is 473.80 ft (144.414 m) above mean sea level. Aug. 23, 1905, to Feb. 7, 1912, nonrecording gage at site 600 ft (183 m) upstream at different datum.

REMARKS.--Records good. Flow regulated since 1942 by Cottage Grove Lake (see station 14153000) and since 1949 by Dorena Lake (see station 14155000). Several small diversions for logponds and irrigation above station.

AVERAGE DISCHARGE.--33 years (water years 1906-11, 1951-77), 1,675 ft³/s (47.44 m³/s), 1,214,000 acre-ft/yr (1.50 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 58,500 ft³/s (1,660 m³/s) Nov. 22, 1909, gage height, 19.5 ft (5.94 m), site and datum then in use, from rating curve extended above 15,000 ft³/s (425 m³/s); minimum, 36 ft³/s (1.02 m³/s) Sept. 29, 30, Oct. 11, 12, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,630 ft³/s (103 m³/s) May 17, gage height, 6.33 ft (1.929 m); minimum, 122 ft³/s (3.46 m³/s) Feb. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	995	640	175	175	175	977	496	326	817	242	203	307
2	986	640	172	187	175	724	490	478	748	239	198	297
3	986	552	222	215	172	765	434	1440	619	235	200	297
4	977	467	232	212	170	724	413	2050	456	239	198	297
5	959	429	232	209	170	558	724	2220	429	242	200	293
6	950	342	232	203	170	478	1170	2350	398	239	198	304
7	940	330	228	192	168	685	1360	2070	362	235	198	508
8	930	322	235	206	168	1040	1520	1750	338	232	198	514
9	920	249	274	206	165	1980	1530	1480	334	228	195	508
10	910	245	242	206	147	1690	1210	1330	350	235	190	502
11	901	315	219	206	137	1050	920	1630	346	232	192	502
12	891	315	206	219	133	1350	708	1580	342	228	192	496
13	817	274	198	235	133	1230	732	1370	330	228	195	490
14	330	278	190	232	133	891	782	1180	322	228	195	484
15	748	281	185	222	131	685	670	1090	300	222	200	490
16	748	278	180	219	131	565	655	1440	270	222	267	484
17	748	274	177	212	129	484	626	2710	267	222	267	484
18	740	281	175	209	129	445	552	3360	263	219	270	490
19	732	263	175	209	129	423	508	2750	256	219	274	520
20	700	259	172	203	129	423	456	1990	256	215	285	662
21	633	252	170	203	145	398	393	1720	278	212	300	791
22	626	245	168	203	212	374	379	1440	274	209	297	817
23	578	225	172	198	274	403	374	1280	274	212	289	959
24	473	219	170	195	362	478	366	1550	270	212	350	1000
25	532	206	170	192	322	450	370	1530	267	209	358	1050
26	578	200	177	177	304	429	334	1300	267	206	342	1060
27	508	198	185	175	318	423	318	1650	263	206	338	1030
28	478	195	187	172	748	571	311	1520	259	206	326	1090
29	484	195	185	172	---	648	307	1230	252	203	322	1410
30	558	180	182	170	---	598	315	950	249	203	318	1830
31	552	---	177	175	---	520	---	872	---	206	311	---
TOTAL	22908	9149	6064	6209	5679	22459	19423	49636	10456	6885	7866	19966
MEAN	739	305	196	200	203	724	647	1601	349	222	254	666
MAX	995	640	274	235	748	1980	1530	3360	817	242	358	1830
MIN	330	180	168	170	129	374	307	326	249	203	190	293
AC-FT	45440	18150	12030	12320	11260	44550	38530	98450	20740	13660	15600	39600

CAL YR 1976 TOTAL 440198 MEAN 1203 MAX 15500 MIN 168 AC-FT 873100
WTR YR 1977 TOTAL 186700 MEAN 512 MAX 3360 MIN 129 AC-FT 370300

14158500 MCKENZIE RIVER AT OUTLET OF CLEAR LAKE, OR

LOCATION.--Lat 44°21'40", long 121°59'40", in SE¼ sec.8, T.14 S., R.7 E., Linn County, Hydrologic Unit 17090004, Willamette National Forest, on west bank of Clear Lake in narrow channel, 150 ft (46 m) upstream from outlet and at mile 89.6 (144.2 km).

DRAINAGE AREA.--92.4 mi^2 (239.3 km^2), hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--June 1912 to September 1915, October 1947 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1288: 1949. WSP 1318: 1915(M). WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,015.32 ft (919.070 m) above mean sea level (levels by Eugene Water and Electric Board). June 20, 1912, to July 31, 1915, nonrecording gage at site 1.0 mi (1.6 km) north at different datum.

REMARKS.--Records excellent. Flow regulated by natural storage in lake. At high stages an undetermined flow enters numerous sinkholes in lava rock along south edge of lake above station.

AVERAGE DISCHARGE.--33 years, 479 ft^3/s (13.57 m^3/s), 70.40 in/yr (1,738 mm/yr), 347,000 acre-ft/yr (428 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,300 ft^3/s (93.5 m^3/s) Dec. 23, 1964, gage height, 8.15 ft (2.484 m); minimum, 137 ft^3/s (3.88 m^3/s) Sept. 23, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 576 ft^3/s (16.3 m^3/s) May 3, 4, gage height, 2.90 ft (0.884 m); minimum, 137 ft^3/s (3.88 m^3/s) Sept. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	277	250	227	202	181	193	247	514	366	196	158	145
2	275	249	225	204	180	192	247	533	360	193	157	145
3	272	249	224	201	180	193	249	566	360	190	157	146
4	270	250	222	199	180	192	252	559	363	189	156	146
5	268	250	220	198	179	192	258	530	360	186	156	145
6	268	250	218	196	177	192	268	501	358	184	156	145
7	265	250	213	195	177	202	282	482	358	181	156	143
8	263	249	217	195	176	212	306	470	358	180	154	142
9	263	247	215	193	176	225	326	461	355	179	152	142
10	261	245	213	193	176	229	347	467	352	177	151	142
11	259	243	212	192	176	238	366	464	350	176	151	142
12	258	241	210	192	174	247	379	458	344	174	151	140
13	258	240	208	195	176	245	396	449	339	173	149	140
14	256	240	208	192	176	241	402	434	334	173	148	140
15	254	243	207	190	177	240	410	425	326	172	148	140
16	252	240	207	190	177	236	419	416	319	170	148	139
17	250	240	205	189	179	232	425	410	311	170	146	139
18	250	243	205	189	179	231	440	399	304	169	146	139
19	249	243	204	189	179	229	446	393	294	169	146	138
20	249	245	202	189	180	225	452	385	284	167	146	138
21	247	245	201	189	183	224	449	382	272	167	146	138
22	247	245	201	189	186	222	443	379	259	166	145	138
23	245	243	201	189	184	224	440	385	247	166	143	139
24	247	241	199	189	184	225	443	379	238	165	147	143
25	252	240	199	187	183	225	467	374	227	163	146	142
26	245	238	201	186	184	225	511	379	220	163	146	143
27	245	234	201	184	184	238	504	379	215	162	145	147
28	245	232	199	184	192	238	488	377	210	161	145	151
29	247	231	201	183	---	238	488	371	204	161	145	153
30	245	229	202	181	---	241	495	368	201	159	147	156
31	249	---	202	183	---	245	---	366	---	158	145	---
TOTAL	7931	7285	6469	5927	5035	6931	11645	13455	9088	5359	4632	4286
MEAN	256	243	209	191	180	224	388	434	303	173	149	143
MAX	277	250	227	204	192	247	511	566	366	196	158	156
MIN	245	229	199	181	174	192	247	366	201	158	143	138
CFSM	2.77	2.63	2.26	2.07	1.95	2.42	4.20	4.70	3.28	1.87	1.61	1.55
IN.	3.19	2.93	2.60	2.39	2.03	2.79	4.69	5.42	3.66	2.16	1.86	1.73
AC-FT	15730	14450	12830	11760	9990	13750	23100	26690	18030	10630	9190	8500

CAL YR 1976 TOTAL 171877 MEAN 470 MAX 1210 MIN 199 CFSM 5.09 IN 69.20 AC-FT 340900
WTR YR 1977 TOTAL 88043 MEAN 241 MAX 566 MIN 138 CFSM 2.61 IN 35.45 AC-FT 174600

14158790 SMITH RIVER ABOVE SMITH RIVER RESERVOIR, NEAR BELKNAP SPRINGS, OR

LOCATION.--Lat 44°20'05", long 122°02'45", in SW¼SW¼ sec. 24, T.14 S., R. 6 E., Linn County, Hydrologic Unit 17090004, in Willamette National Forest, on right bank 200 ft (61 m) upstream from Smith River Reservoir, 0.7 mi (1.1 km) downstream from Browder Creek, 10 mi (16 km) north of town of Belknap Springs, and at mile 4.4 (7.1 km).

DRAINAGE AREA.--16.2 mi^2 (42.0 km^2).

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,510.00 ft (795.528 m) above mean sea level (levels by Eugene Water and Electric Board). Prior to Sept. 10, 1964, at datum 1.56 ft (0.475 m) higher.

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--17 years, 93.1 ft^3/s (2.637 m^3/s), 78.04 in/yr (1,982 mm/yr), 67,450 acre-ft/yr (83.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,160 ft^3/s (146 m^3/s) Dec. 22, 1964, gage height, 11.9 ft (3.63 m), from floodmark, from rating curve extended above 560 ft^3/s (15.9 m^3/s), on basis of slope-area measurement of peak flow; minimum, 3.2 ft^3/s (0.091 m^3/s) Sept. 24-29, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 289 ft^3/s (8.18 m^3/s) Apr. 7, gage height, 6.77 ft (2.063 m), no peak above base of 800 ft^3/s (22.7 m^3/s); minimum, 3.4 ft^3/s (0.10 m^3/s) Oct. 18-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	30	8.4	13	11	36	61	184	116	11	4.8	7.7
2	4.8	22	8.1	13	11	30	60	211	100	10	4.8	7.0
3	5.4	16	7.7	11	10	26	62	214	96	10	4.8	7.0
4	4.3	13	7.7	11	10	24	82	180	126	10	4.6	7.0
5	4.3	11	7.4	13	10	25	126	156	118	9.8	4.6	6.7
6	4.1	10	7.4	25	10	29	180	136	112	9.3	4.3	6.3
7	4.1	9.3	7.0	13	8.8	65	238	120	101	8.8	4.3	5.7
8	4.1	8.8	9.8	9.3	8.8	156	264	112	85	8.4	4.6	5.7
9	3.8	8.1	8.8	11	9.3	130	204	114	71	8.1	4.1	5.4
10	3.8	7.7	8.1	12	10	87	160	151	61	8.1	4.1	5.4
11	4.1	7.4	8.4	9.8	11	68	147	136	53	7.7	3.8	5.1
12	3.8	7.4	8.4	12	11	65	149	122	48	7.4	3.8	5.1
13	3.8	7.0	8.1	13	14	55	160	112	42	7.4	3.8	4.8
14	3.6	8.8	8.1	12	12	47	143	112	38	7.0	4.1	4.8
15	3.6	24	8.1	12	11	43	141	107	35	7.0	3.8	4.8
16	3.6	25	8.1	13	11	40	147	101	32	6.7	3.6	5.4
17	3.6	19	8.1	15	10	37	132	109	29	6.7	4.1	5.7
18	3.4	21	8.1	17	10	36	120	105	26	7.7	4.8	6.7
19	3.4	17	7.7	18	10	37	107	101	25	7.4	5.1	9.3
20	3.4	16	7.4	17	11	36	105	101	23	7.0	5.1	11
21	3.4	15	7.4	17	13	37	109	107	22	6.7	4.8	11
22	3.4	13	7.0	16	13	47	122	107	20	6.3	4.8	10
23	3.4	13	7.7	16	12	56	147	122	19	6.3	4.8	15
24	6.3	11	7.0	14	11	51	189	109	17	6.3	11	30
25	26	11	9.3	14	11	48	233	101	16	6.0	9.8	25
26	13	10	21	13	11	47	211	141	15	6.0	9.8	18
27	6.7	9.3	24	12	25	84	184	128	15	5.7	7.4	15
28	6.7	9.3	18	12	53	69	180	126	13	5.4	9.3	19
29	6.3	8.8	16	11	---	60	175	116	13	5.4	13	21
30	6.0	8.8	15	11	---	55	177	105	12	5.1	16	39
31	13	---	13	12	---	53	---	103	---	5.1	8.8	---
TOTAL	173.3	397.7	306.3	418.1	358.9	1679	4515	3949	1499	229.8	186.5	329.6
MEAN	5.59	13.3	9.88	13.5	12.8	54.2	151	127	50.0	7.41	6.02	11.0
MAX	26	30	24	25	53	156	264	214	126	11	16	39
MIN	3.4	7.0	7.0	9.3	8.8	24	60	101	12	5.1	3.6	4.8
CFSM	.35	.82	.61	.83	.79	3.35	9.32	7.84	3.09	.46	.37	.68
IN.	.40	.91	.70	.96	.82	3.86	10.37	9.07	3.44	.53	.43	.76
AC-FT	344	789	608	829	712	3330	8960	7830	2970	456	370	654

CAL YR 1976 TOTAL 26218.0 MEAN 71.6 MAX 402 MIN 3.4 CFSM 4.42 IN 60.20 AC-FT 52000
WTR YR 1977 TOTAL 14042.2 MEAN 38.5 MAX 264 MIN 3.4 CFSM 2.38 IN 32.24 AC-FT 27850

14158795 SMITH RIVER RESERVOIR NEAR BELKNAP SPRINGS, OR

LOCATION.--Lat 44°18'20", long 122°02'40", in SW¼SW¼ sec.36, T.14 S., R.6 E., Linn County, Hydrologic Unit 17090004, Willamette National Forest, in intake tower near left end of Smith River Dam on Smith River, 800 ft (244 m) upstream from Bunchgrass Creek, 8 mi (13 km) north of town of Belknap Springs, and at mile 2.1 (3.4 km).

DRAINAGE AREA.--18.2 mi^2 (47.1 km^2).

PERIOD OF RECORD.--March 1963 to current year.

GAGE.--Telemark with equipment to transmit elevations at 15-minute intervals. Datum of gage is at mean sea level (levels by Eugene Water and Electric Board).

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway completed in 1963 by Eugene Water and Electric Board; storage began Mar. 18, 1963. Total capacity is 15,000 acre-ft (18.5 hm^3) at elevation 2,605.0 ft (794.00 m), top of spillway gates, and usable capacity is 9,900 acre-ft (12.2 hm^3) between elevations 2,525.0 ft (769.62 m), minimum power pool, and 2,605.0 ft (794.00 m). Storage of 5,100 acre-ft (6.29 hm^3), below elevation 2,525.0 ft (769.62 m), not normally available for release. Water used for power generation. Figures herein represent total contents.

COOPERATION.--Elevations and area-volume curves furnished by Eugene Water and Electric Board.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 15,200 acre-ft (18.7 hm^3) Dec. 22, 1964, elevation, 2,606.5 ft (794.46 m); minimum, 5,700 acre-ft (7.03 hm^3) Apr. 11, 14, 1964, elevation, 2,532.90 ft (772.028 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 14,800 acre-ft (18.2 hm^3) June 19, elevation, 2,603.93 ft (793.678 m); minimum, 13,200 acre-ft (16.3 hm^3) Apr. 6, elevation, 2,594.58 ft (790.828 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2,601.76	14,400	-
Oct. 31	2,600.89	14,250	-150
Nov. 30	2,600.89	14,250	0
Dec. 31	2,600.74	14,230	-20
CAL YR 1976	-	-	+2,110
Jan. 31	2,600.82	14,240	+10
Feb. 28	2,600.90	14,250	+10
Mar. 31	2,594.87	13,280	-970
Apr. 30	2,598.93	13,930	+650
May 31	2,598.50	13,860	-70
June 30	2,601.64	14,380	+520
July 31	2,602.02	14,440	+60
Aug. 31	2,601.76	14,400	-40
Sept. 30	2,601.60	14,370	-30
WTR YR 1977	-	-	-30

14158850 MCKENZIE RIVER BELOW TRAIL BRIDGE DAM, NEAR BELKNAP SPRINGS, OR

LOCATION.--Lat 44°16'05", long 122°02'55", in T.15 S., R.6 E. (unsurveyed), Linn County, Hydrologic Unit 17090004, in Willamette National Forest, on left bank 0.4 mi (0.6 km) downstream from Trail Bridge Dam, 0.5 mi (0.8 km) upstream from Anderson Creek, 5 mi (8 km) north of town of Belknap Springs, and at mile 81.5 (131.1 km).

DRAINAGE AREA.--184 mi^2 (477 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,980.00 ft (603.504 m) above mean sea level (levels by Eugene Water and Electric Board). Prior to Oct. 11, 1963, at datum 5.60 ft (1.707 m) higher.

REMARKS.--Water-discharge records good. Flow regulated since 1963 by Smith River Reservoir (see station 14158795). Diurnal fluctuations by powerplants and by Trail Bridge reregulating reservoir upstream. Water is diverted from McKenzie River in SW¼ sec.20, T.14 S., R.7 E., to Smith River Reservoir and returned to river above station.

AVERAGE DISCHARGE.--18 years, 1,056 ft^3/s (29.91 m^3/s), 77.94 in/yr (1,980 mm/yr), 765,100 acre-ft/yr (943 hm^3/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,200 ft^3/s (317 m^3/s) Dec. 22, 1964, gage height, 12.45 ft (3.795 m), from rating curve extended above 3,700 ft^3/s (105 m^3/s) on basis of slope-area measurement of peak flow; minimum, 185 ft^3/s (5.24 m^3/s) Feb. 3, 1963; minimum daily, 425 ft^3/s (12.0 m^3/s) Nov. 23, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,240 ft^3/s (35.1 m^3/s) May 3, gage height, 7.19 ft (2.192 m); minimum, 456 ft^3/s (12.9 m^3/s) Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	746	767	654	617	587	677	719	1160	887	580	558	558
2	726	719	654	625	580	640	719	1150	902	602	573	558
3	790	740	669	647	580	617	746	1190	910	632	565	551
4	797	733	654	632	573	654	790	1190	932	617	565	529
5	760	699	610	595	558	654	902	1120	910	617	551	529
6	733	684	632	580	558	684	925	1080	910	602	551	536
7	733	684	677	587	573	782	880	1040	902	595	558	536
8	733	712	662	602	573	947	932	993	880	587	558	536
9	726	726	684	602	573	962	1030	985	895	580	551	529
10	706	726	647	610	573	865	970	1060	842	617	543	536
11	719	712	640	610	565	740	917	1050	740	617	551	536
12	726	677	617	602	565	740	925	1010	706	580	551	536
13	733	669	617	610	565	740	985	985	733	573	551	536
14	726	692	617	632	573	746	977	985	797	580	551	536
15	712	753	617	610	580	692	1020	962	797	595	551	529
16	706	712	617	587	587	692	1000	955	797	595	543	522
17	699	706	625	580	565	699	977	970	746	580	543	522
18	699	706	640	587	558	699	955	947	712	580	551	522
19	699	706	625	602	558	699	977	887	790	580	543	536
20	692	699	617	602	573	699	1010	872	775	580	551	543
21	712	706	625	610	587	677	962	902	726	580	543	551
22	719	699	625	610	610	677	962	947	706	565	536	551
23	719	699	617	602	610	692	1040	955	699	565	543	558
24	712	699	625	602	587	712	1040	940	662	565	543	587
25	760	692	625	587	573	726	1130	925	654	565	551	558
26	719	662	647	587	565	726	1170	977	654	573	558	558
27	706	669	662	587	595	753	1110	970	654	573	558	558
28	706	669	632	580	706	775	1100	902	654	580	558	565
29	706	684	625	587	---	797	1090	932	640	565	558	580
30	706	684	587	587	---	753	1080	932	617	558	558	632
31	719	---	595	580	---	733	---	910	---	551	558	---
TOTAL	22445	21085	19640	18638	16250	22649	29040	30883	23229	18129	17123	16414
MEAN	724	703	634	601	580	731	968	996	774	585	552	547
MAX	797	767	684	647	706	962	1170	1190	932	632	573	632
MIN	692	662	587	580	558	617	719	872	617	551	536	522
AC-FT	44520	41820	38960	36970	32230	44920	57600	61260	46070	35960	33960	32560
MEAN†	722	703	633	601	580	715	979	995	783	586	552	547
CFSM†	3.92	3.82	3.44	3.27	3.15	3.89	5.32	5.41	4.26	3.18	3.00	2.97
IN.†	4.52	4.26	3.97	3.77	3.29	4.48	5.94	6.24	4.75	3.67	3.46	3.32
AC-FT†	44,370	41,820	38,940	36,980	32,240	43,950	58,250	61,190	46,590	36,020	33,920	32,530

CAL YR 1976 TOTAL 372,161 MEAN 1,017 MAX 2,040 MIN 587 AC-FT 738,200 MEAN† 1,020 CFSM† 5.54 IN.† 75.45 AC-FT† 740,260
WTR YR 1977 TOTAL 255,525 MEAN 700 MAX 1,190 MIN 522 AC-FT 506,800 MEAN† 700 CFSM† 3.80 IN.† 51.66 AC-FT† 506,800

† Adjusted for change in contents in Smith River Reservoir.

14158850 MCKENZIE RIVER BELOW TRAIL BRIDGE DAM, NEAR BELKNAP SPRINGS, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1976 to current year.
WATER TEMPERATURES: November 1976 to current year.

INSTRUMENTATION.--Dual conductivity-temperature recorder since November 1976.

REMARKS.--Interruptions in the record after Nov. 3, were due to malfunctions of the instrument.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 59 micromhos Feb. 4; minimum recorded, 45 micromhos May 30, June 1, 6-9.
WATER TEMPERATURES: Maximum recorded, 12.0°C Aug. 1; minimum recorded, 4.0°C many days January to March.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
AUG									
10...	1215	543	23	6.9	2.0	4.4	32	1.6	.9

DATE	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
AUG									
10...	.1	.00	.54	.54	.05	25	0	.4	46

DATE	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (JTU)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	ALKALINITY AS CACO3 (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
AUG								
10...	56	67.4	.06	1	1	1.5	26	.0

DATE	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)
AUG											
10...	30	20	0	0	0	1	<10	0	0	0	<50

DATE	DISSOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)
AUG											
10...	0	<10	2	<100	2	20	6	0	0	.0	.0

14158850 McKENZIE RIVER BELOW TRAIL BRIDGE DAM, NEAR BELKNAP SPRINGS, OR--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	56	56	53	56		---	47	50	54	54
2		---	57	56	53	---		---	47	51	54	54
3		---	56	55	53	57		---	47	52	54	54
4		53	57	55	54	56		---	47	52	54	53
5		54	57	55	55	56		---	47	52	54	53
6		54	57	56	55	56		---	46	52	54	53
7		54	57	56	55	56		---	46	52	54	53
8		54	57	56	55	55		---	47	52	54	53
9		54	57	56	54	55		---	47	52	54	53
10		54	57	55	54	54		---	47	52	54	52
11		54	57	55	54	54		---	48	52	54	52
12		54	57	55	54	54		---	48	52	54	52
13		54	57	55	54	54		---	48	53	54	52
14		54	57	55	54	54		---	48	53	54	51
15		54	57	55	54	54		---	48	52	54	52
16		55	57	55	55	54		---	48	53	54	51
17		55	57	55	55	54		---	48	53	55	52
18		55	57	55	55	53		---	48	53	55	52
19		54	57	55	56	53		---	48	53	54	51
20		55	56	55	56	53		---	49	53	54	51
21		55	56	54	56	53		---	49	53	55	51
22		56	57	55	56	53		---	49	53	55	51
23		56	57	55	56	54		---	49	53	54	51
24		56	57	55	56	53		---	49	53	55	51
25		56	56	55	57	53		---	49	53	55	51
26		56	56	54	56	53		47	50	53	55	51
27		56	56	54	56	53		47	50	53	55	51
28		56	56	54	56	53		47	50	53	54	50
29		56	56	54	---	52		47	50	53	54	51
30		56	56	53	---	52		47	50	54	54	51
31		---	56	53	---	53		47	---	53	54	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1			---	---	5.5	5.5	5.5	5.0	4.5	4.0	4.5	4.0
2			---	---	5.5	5.5	5.0	5.0	4.5	4.0	---	---
3			---	---	5.5	5.5	5.0	5.0	4.5	4.0	4.5	4.5
4			6.5	6.0	5.5	5.5	5.0	5.0	4.5	4.0	5.0	4.0
5			6.5	6.0	5.5	5.5	5.5	5.0	4.5	4.0	5.0	4.5
6			6.5	6.5	5.5	5.5	5.0	4.5	4.5	4.0	5.0	4.5
7			6.5	6.0	5.5	5.5	5.0	4.5	4.5	4.0	5.0	4.5
8			6.5	6.0	6.0	5.5	5.0	4.5	4.5	4.5	5.0	4.5
9			6.5	6.0	6.0	6.0	5.0	4.5	5.0	4.5	4.5	4.0
10			6.5	6.0	6.0	5.5	5.0	4.5	5.0	4.5	4.5	4.0
11			6.5	6.0	6.0	5.5	5.0	5.0	5.0	4.5	4.5	4.5
12			6.5	6.0	6.0	5.5	5.0	5.0	5.0	4.5	4.5	4.5
13			6.5	6.0	6.0	5.5	5.0	5.0	5.0	4.5	4.5	4.0
14			6.0	6.0	6.0	5.5	5.0	5.0	5.0	5.0	4.5	4.5
15			6.0	6.0	5.5	5.5	5.0	5.0	5.0	5.0	5.0	4.5
16			6.0	6.0	6.0	5.5	5.0	5.0	5.0	5.0	5.0	4.5
17			6.5	6.0	6.0	5.5	5.5	5.0	5.0	5.0	5.0	4.5
18			6.5	6.0	6.0	5.5	5.5	5.0	5.0	5.0	5.0	4.5
19			6.5	6.0	6.0	5.5	5.5	5.0	5.0	5.0	5.0	4.5
20			6.5	6.0	6.0	5.5	5.0	5.0	5.0	5.0	5.0	4.5
21			6.5	6.0	5.5	5.5	5.5	5.0	5.0	5.0	5.0	4.5
22			6.0	6.0	5.5	5.5	5.5	5.0	5.0	4.5	5.0	4.5
23			6.5	6.0	5.5	5.5	5.0	5.0	5.0	4.5	5.5	5.0
24			6.0	6.0	5.5	5.5	5.0	5.0	5.0	4.5	5.0	5.0
25			6.0	6.0	5.5	5.5	5.0	5.0	4.5	4.5	5.5	5.0
26			6.0	6.0	5.5	5.5	5.0	4.0	5.0	4.5	5.5	5.0
27			6.0	5.5	5.5	5.5	4.5	4.0	4.5	4.5	5.0	4.5
28			6.0	5.5	5.5	5.5	4.5	4.0	4.5	4.0	5.0	4.5
29			5.5	5.5	5.5	5.5	4.5	4.0	---	---	5.0	4.5
30			5.5	5.5	5.5	5.0	4.5	4.0	---	---	5.0	5.0
31			---	---	5.5	5.0	4.5	4.0	---	---	5.5	5.0
MONTH			6.5	5.5	6.0	5.0	5.5	4.0	5.0	4.0	5.5	4.0

14158850 MCKENZIE RIVER BELOW TRAIL BRIDGE DAM, NEAR BELKNAP SPRINGS, OR--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	8.0	7.0	10.0	9.0	12.0	10.0	9.5	8.5
2			---	---	7.5	7.5	10.0	9.0	11.5	10.5	10.0	9.0
3			---	---	8.0	7.0	10.0	9.0	11.5	10.5	9.5	9.0
4			---	---	8.0	7.0	10.0	9.0	11.0	9.0	10.0	9.0
5			---	---	8.0	7.5	10.0	9.0	10.5	9.5	10.0	9.0
6			---	---	8.0	7.5	10.0	9.0	10.5	9.5	10.0	9.0
7			---	---	9.0	8.0	10.0	9.0	10.5	9.5	10.0	9.0
8			---	---	8.5	8.0	10.5	9.5	10.5	9.5	10.0	9.0
9			---	---	8.5	8.0	10.5	9.5	10.5	9.5	10.0	9.0
10			---	---	8.5	8.0	10.5	9.5	10.5	9.5	10.0	9.0
11			---	---	8.5	8.0	10.5	9.5	10.5	9.5	10.0	9.0
12			---	---	8.5	8.0	10.5	9.5	10.5	9.5	10.0	9.0
13			---	---	9.0	8.0	10.5	9.5	10.5	9.5	9.5	9.0
14			---	---	9.0	8.5	10.5	9.5	10.5	9.5	10.0	9.0
15			---	---	9.0	8.5	10.5	9.5	10.5	9.5	10.0	9.0
16			---	---	9.0	8.5	10.5	9.5	10.0	9.0	9.5	9.0
17			---	---	9.0	8.5	10.5	9.5	10.0	9.0	9.5	9.0
18			---	---	9.5	8.5	10.5	9.5	10.0	9.5	9.5	9.0
19			---	---	9.5	8.5	10.5	9.5	10.0	9.0	9.5	8.5
20			---	---	9.5	8.5	10.5	9.5	10.0	9.0	9.5	8.5
21			---	---	9.5	8.5	10.5	9.5	10.0	9.5	9.5	8.5
22			---	---	9.5	8.5	10.5	9.5	10.0	9.0	9.5	9.0
23			---	---	9.5	8.5	10.5	9.5	10.0	9.0	9.0	8.5
24			---	---	9.5	9.0	10.5	9.5	10.0	9.5	9.0	8.5
25			---	---	9.5	9.0	10.5	9.5	10.0	9.0	9.0	8.5
26			7.5	7.5	9.5	9.0	10.5	9.5	10.0	8.5	9.0	8.5
27			7.5	7.0	9.5	9.0	10.5	9.5	9.5	8.5	9.0	8.5
28			7.5	7.0	10.0	9.0	11.5	10.0	9.5	8.5	9.0	8.5
29			7.5	7.0	10.0	9.0	11.5	10.0	9.5	8.5	9.0	8.0
30			7.5	7.0	10.0	9.0	10.5	9.5	9.5	8.5	8.5	8.5
31			7.5	7.0	---	---	11.0	9.5	9.5	8.5	---	---
MONTH			7.5	7.0	10.0	7.0	11.5	9.0	12.0	8.5	10.0	8.0

14159000 MCKENZIE RIVER AT MCKENZIE BRIDGE, OR

LOCATION.--Lat 44°10'45", long 122°07'45", on line between NE¼ and NW¼ sec.18, T.16 S., R.6 E., Lane County, Hydrologic Unit 17090004, Willamette National Forest, on left bank 1.0 mi (1.6 km) upstream from Glen Creek, 1.7 mi (2.7 km) east of town of McKenzie Bridge, and at mile 69.9 (112.5 km).

DRAINAGE AREA.--348 mi² (901 km²) at cableway 1.2 mi (1.9 km) upstream, where all discharge measurements are made.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1910 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as "near McKenzie Bridge" August 1910 to September 1911 and October 1914 to September 1916.

REVISED RECORDS.--WSP 1248: 1911-16, 1920-25. WSP 1448: 1919. WSP 1638: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,419.04 ft (432.523 m) above mean sea level. Prior to June 2, 1932, nonrecording gage at several sites within 2 mi (3 km) of present site at various datums.

REMARKS.--Water-discharge records good. Flow regulated since March 1963 by Smith River Reservoir (see station 14158795). No diversion above station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--67 years, 1,686 ft³/s (47.75 m³/s), 1,222,000 acre-ft/yr (1.51 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,100 ft³/s (541 m³/s) Dec. 22, 1964, gage height, 10.36 ft (3.158 m), from rating curve extended above 7,100 ft³/s (201 m³/s) on basis of slope-area measurement of peak flow; minimum, 805 ft³/s (22.8 m³/s) Oct. 20, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,930 ft³/s (54.7 m³/s) May 3, gage height, 1.82 ft (0.555 m); minimum, 924 ft³/s (26.2 m³/s) Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1220	1290	1110	1070	1030	1230	1350	1780	1520	1100	1000	980
2	1190	1220	1100	1090	1030	1180	1350	1830	1500	1120	1000	972
3	1250	1220	1110	1100	1030	1170	1390	1890	1490	1150	1000	972
4	1260	1200	1110	1090	1010	1180	1600	1860	1550	1140	1000	956
5	1220	1160	1060	1060	998	1180	1700	1770	1500	1130	1000	956
6	1200	1140	1070	1050	998	1210	1700	1690	1490	1120	1000	956
7	1190	1140	1110	1040	1010	1370	1700	1640	1470	1120	1000	956
8	1190	1160	1120	1040	1010	1750	1790	1580	1440	1110	1000	948
9	1190	1170	1130	1040	1010	1770	1800	1580	1430	1110	1000	948
10	1160	1170	1100	1040	1010	1590	1680	1760	1400	1120	980	948
11	1170	1160	1090	1050	1010	1410	1590	1760	1290	1090	980	948
12	1180	1120	1070	1040	998	1400	1580	1670	1250	1100	980	940
13	1180	1120	1060	1080	1010	1370	1660	1630	1260	1100	980	940
14	1180	1130	1060	1090	1010	1350	1630	1600	1310	1100	980	940
15	1170	1240	1060	1070	1010	1280	1650	1590	1310	1100	980	940
16	1160	1220	1060	1040	1020	1250	1650	1570	1310	1100	980	932
17	1150	1180	1060	1040	998	1240	1600	1600	1270	1000	980	932
18	1150	1180	1070	1050	989	1250	1550	1580	1210	1000	980	932
19	1150	1170	1070	1050	980	1270	1550	1520	1280	1000	972	956
20	1140	1160	1060	1060	998	1250	1580	1480	1280	1000	972	964
21	1160	1160	1060	1060	1030	1230	1530	1520	1220	1000	972	972
22	1170	1150	1060	1060	1060	1260	1530	1570	1200	1000	972	964
23	1170	1150	1060	1060	1050	1290	1630	1600	1200	1000	964	989
24	1180	1150	1060	1040	1030	1290	1660	1570	1170	1000	998	1080
25	1300	1150	1070	1030	1030	1290	1790	1540	1160	1000	989	1030
26	1210	1120	1120	1030	1030	1320	1830	1630	1160	1000	998	998
27	1170	1120	1140	1030	1080	1420	1740	1610	1160	1000	980	989
28	1170	1120	1100	1030	1290	1410	1700	1560	1160	1000	989	1030
29	1160	1120	1080	1030	---	1370	1690	1570	1150	1000	998	1030
30	1160	1120	1050	1030	---	1330	1670	1560	1130	1000	1020	1090
31	1180	---	1050	1030	---	1340	---	1530	---	1000	989	---
TOTAL	36730	34910	33530	32620	28759	41250	48870	50640	39270	32810	30633	29188
MEAN	1185	1164	1082	1052	1027	1331	1629	1634	1309	1058	988	973
MAX	1300	1290	1140	1100	1290	1770	1830	1890	1550	1150	1020	1090
MIN	1140	1120	1050	1030	980	1170	1350	1480	1130	1000	964	932
AC-FT	72850	69240	66510	64700	57040	81820	96930	100400	77890	65080	60760	57890

CAL YR 1976 TOTAL 622540 MEAN 1701 MAX 3840 MIN 1050 AC-FT 1235000
WTR YR 1977 TOTAL 439210 MEAN 1203 MAX 1890 MIN 932 AC-FT 871200

NOTE.--No gage-height record July 12 to Aug. 10.

14159000 MCKENZIE RIVER AT MCKENZIE BRIDGE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1976 to current year.
WATER TEMPERATURES: November 1976 to current year.

INSTRUMENTATION.--Conductivity and temperature recorder since November 1976.

REMARKS.--Interruptions in the record after Nov. 4 were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 78 micromhos Jan. 2, 1977; minimum recorded, 43 micromhos Aug. 5, 6, 1977.
WATER TEMPERATURES: Maximum recorded, 13.5°C Aug. 1, 3, 1977; minimum recorded, 3.5°C Jan. 5, 8, 9, 1977.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 78 micromhos Jan. 2; minimum recorded, 43 micromhos Aug. 5, 6.
WATER TEMPERATURES: Maximum recorded, 13.5°C Aug. 1, 3; minimum recorded, 3.5°C Jan. 5, 8, 9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
AUG 10...	1500	981	24	5.3	2.0	5.0	31	1.5	2.3

DATE	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
AUG 10...	.1	.00	.37	.37	.05	21	0	.5	47

DATE	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (JTU)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	ALKALINITY AS CACO3 (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
AUG 10...	57	124	.06	1	1	2.6	25	.4

DATE	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)
AUG 10...	40	20	0	0	0	0	<10	4	0	0	<50

DATE	DISSOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)
AUG 10...	1	10	5	<100	54	40	20	0	0	.1	.0

14159000 MCKENZIE RIVER AT MCKENZIE BRIDGE, OR—Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	---	67					---	51	54	56
2		---	---	67					---	52	54	56
3		---	---	67					---	51	54	56
4		---	---	66					---	51	55	56
5		60	---	65					---	51	50	56
6		60	---	65					---	50	50	55
7		59	---	65					---	51	56	56
8		---	---	65					54	53	55	56
9		---	---	64					55	52	56	56
10		---	---	66					55	52	56	55
11		---	---	65					55	52	56	55
12		---	---	66					56	52	56	55
13		---	---	66					56	53	56	55
14		---	---	66					54	53	56	55
15		---	---	65					55	53	56	55
16		---	---	64					54	52	56	55
17		---	---	64					53	53	57	55
18		---	---	64					54	53	57	55
19		---	---	65					54	53	57	54
20		---	---	66					54	53	57	54
21		---	---	66					53	54	57	55
22		---	---	65					53	54	57	54
23		---	---	66					53	54	57	54
24		---	---	65					52	54	56	53
25		---	---	63					53	54	57	53
26		---	---	65					52	54	57	53
27		---	66	62					52	54	57	54
28		---	67	65					52	54	56	54
29		---	65	62					52	55	57	54
30		---	68	65					51	55	56	53
31		---	68	---					---	54	57	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1			---	---	---	---	5.0	4.0				
2			---	---	---	---	5.0	4.0				
3			---	---	---	---	5.0	4.5				
4			8.0	7.0	---	---	5.0	4.0				
5			8.0	7.0	---	---	4.0	3.5				
6			8.0	7.0	---	---	4.0	4.0				
7			8.0	7.0	---	---	4.5	4.0				
8			---	---	---	---	4.0	3.5				
9			---	---	---	---	4.5	3.5				
10			---	---	---	---	5.5	4.5				
11			---	---	---	---	5.0	4.5				
12			---	---	---	---	5.0	5.0				
13			---	---	---	---	5.0	5.0				
14			---	---	---	---	6.0	4.5				
15			---	---	---	---	6.0	5.0				
16			---	---	---	---	5.0	5.0				
17			---	---	---	---	5.5	4.5				
18			---	---	---	---	5.0	4.5				
19			---	---	---	---	5.0	4.5				
20			---	---	---	---	5.0	4.5				
21			---	---	---	---	5.0	4.5				
22			---	---	---	---	6.0	4.5				
23			---	---	---	---	5.5	4.5				
24			---	---	---	---	6.0	4.5				
25			---	---	---	---	6.0	5.0				
26			---	---	---	---	5.5	4.5				
27			---	---	6.0	5.0	6.0	5.0				
28			---	---	5.0	4.5	5.0	4.5				
29			---	---	5.5	4.5	6.5	5.0				
30			---	---	5.0	4.0	5.0	5.0				
31			---	---	4.5	4.0	---	---				
MONTH			8.0	7.0	6.0	4.0	6.5	3.5				

14159000 MCKENZIE RIVER AT MCKENZIE BRIDGE, OR--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	7.5	6.5	9.0	7.0	12.0	9.0	13.5	9.5	11.5	8.5
2	---	---	8.5	6.5	9.5	7.0	12.0	9.0	13.0	10.0	10.5	8.5
3	---	---	7.0	6.0	8.5	7.5	10.5	9.0	13.5	9.5	11.0	9.0
4	---	---	7.0	6.0	9.5	7.5	11.0	9.0	13.0	9.0	11.5	9.0
5	---	---	7.0	6.0	11.0	7.5	10.5	8.5	12.5	9.0	11.5	9.0
6	---	---	8.0	6.0	11.0	8.0	12.0	8.5	12.5	9.5	11.5	9.0
7	---	---	7.0	5.5	9.5	8.0	12.5	8.5	11.5	9.5	11.5	8.5
8	---	---	9.0	6.0	11.5	8.0	12.5	9.0	12.5	9.5	11.0	8.5
9	---	---	7.0	6.0	11.5	8.0	12.0	9.0	12.5	9.0	11.0	8.0
10	---	---	7.0	6.0	11.0	8.5	12.5	8.5	12.5	9.0	11.0	8.5
11	---	---	7.5	6.0	11.5	8.5	12.5	9.0	12.5	9.5	11.0	8.5
12	---	---	8.0	6.0	11.5	8.5	11.5	9.5	12.0	9.0	11.0	8.5
13	---	---	8.0	6.5	12.0	8.0	12.5	8.5	12.0	9.5	11.0	8.5
14	8.0	6.0	8.0	6.5	11.5	8.5	12.5	9.0	12.5	9.5	11.0	8.5
15	7.0	6.0	7.5	6.0	11.5	8.5	12.5	9.0	12.5	9.5	10.0	8.5
16	7.0	5.5	7.5	6.0	12.0	8.5	12.5	9.5	12.5	9.5	10.0	8.5
17	8.0	5.5	7.5	6.0	11.5	8.5	12.5	9.5	12.0	9.5	9.5	8.5
18	7.5	5.5	8.0	6.5	12.0	8.5	10.5	9.5	12.5	9.5	9.5	8.5
19	8.0	5.0	9.5	6.5	12.0	9.0	12.0	9.0	11.5	9.5	10.0	8.5
20	8.0	5.5	9.5	6.5	10.0	9.0	12.5	9.0	11.5	9.5	9.5	8.5
21	7.5	6.0	9.5	7.0	12.0	9.0	12.5	9.5	12.0	9.5	9.5	8.5
22	8.0	6.0	8.0	6.5	12.5	9.0	13.0	9.5	12.0	9.5	10.0	8.5
23	7.5	6.0	8.5	7.0	12.5	9.0	11.5	9.5	11.0	9.0	8.5	8.5
24	8.5	6.0	9.0	6.5	12.5	9.0	12.0	9.5	10.5	9.5	9.5	8.5
25	8.0	6.5	9.0	6.5	13.0	9.0	12.0	9.5	9.5	9.0	9.5	8.0
26	8.5	6.0	8.0	7.0	12.5	9.0	13.0	9.5	10.0	9.0	10.0	8.0
27	9.0	6.0	7.5	6.5	12.5	9.0	12.5	9.5	9.5	9.0	8.5	8.0
28	8.0	6.5	9.5	6.5	13.0	9.0	12.5	9.5	10.0	9.0	8.5	8.5
29	8.5	6.5	9.5	6.5	12.5	9.0	13.0	9.0	10.5	9.0	8.5	8.0
30	8.5	6.5	8.5	7.0	12.5	9.0	12.5	9.0	11.5	9.0	8.5	8.0
31	---	---	9.5	7.5	---	---	13.0	9.5	11.0	8.5	---	---
MONTH	9.0	5.0	9.5	5.5	13.0	7.0	13.0	8.5	13.5	8.5	11.5	8.0

14159200 SOUTH FORK MCKENZIE RIVER ABOVE COUGAR LAKE, NEAR RAINBOW, OR

LOCATION.--Lat 44°02'50", long 122°13'00", in T.17 S., R.5 E. (unsurveyed), Lane County, Hydrologic Unit 17090004, in Willamette National Forest, on right bank 100 ft (30 m) upstream from Tipsoo Creek, 8.0 mi (12.9 km) south of Rainbow, 9.0 mi (14.5 km) southeast of town of Blue River, and at mile 10.4 (16.7 km). Records include flow of Tipsoo Creek.

DRAINAGE AREA.--160 mi² (414 km²) at cableway 0.2 mi (0.3 km) downstream, where all discharge measurements are made.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1971, published as South Fork McKenzie River above Cougar Reservoir.

REVISED RECORDS.--WSP 1638: Drainage area. WSP 1935: 1958(M).

GAGE.--Water-stage recorder. Datum of gage is 1,709.51 ft (521.059 m) above mean sea level (Corps of Engineers bench mark).

REMARKS.--Water-discharge records good. No regulation or diversion above station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--20 years, 645 ft³/s (18.27 m³/s), 54.74 in/yr (1,390 mm/yr), 467,300 acre-ft/yr (576 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft³/s (521 m³/s) Dec. 22, 1964, gage height, 20.06 ft (6.114 m), from floodmark, from rating curve extended above 7,600 ft³/s (215 m³/s), on basis of slope-area measurement of peak flow; minimum, 182 ft³/s (5.15 m³/s) Aug. 17-20, 22, 23, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,070 ft³/s (30.3 m³/s) May 3, gage height, 5.73 ft (1.747 m), no peak above base of 2,500 ft³/s (70.8 m³/s); minimum, 182 ft³/s (5.15 m³/s) Aug. 17-20, 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	243	339	232	229	225	365	490	850	756	250	198	217
2	246	301	232	255	220	325	479	992	701	246	198	207
3	253	278	229	246	217	333	455	1030	660	246	196	205
4	246	265	229	239	217	314	511	945	693	243	196	203
5	243	258	227	232	215	314	636	869	672	243	193	198
6	241	253	227	227	215	336	752	787	668	239	193	198
7	239	248	227	227	215	438	897	718	624	236	196	196
8	239	246	239	222	215	731	992	668	570	234	198	193
9	236	243	239	220	215	739	823	672	518	232	193	191
10	236	241	232	225	215	544	684	930	476	229	191	191
11	236	239	234	225	217	455	612	940	445	227	189	191
12	234	236	232	229	217	462	589	874	425	227	189	189
13	234	236	229	248	222	422	656	805	399	225	189	189
14	232	241	227	248	222	387	612	796	377	222	191	191
15	232	325	225	241	220	362	589	792	359	220	189	191
16	232	312	225	241	217	345	616	778	345	217	187	196
17	229	285	225	241	217	331	577	841	333	217	187	196
18	229	285	222	246	217	328	536	841	322	222	184	200
19	229	273	220	246	215	342	504	800	314	222	184	215
20	227	265	220	243	217	347	490	796	309	217	187	234
21	227	260	217	241	234	339	493	800	306	215	187	232
22	227	255	217	239	248	371	515	814	296	212	184	220
23	227	250	225	234	239	438	570	916	288	210	184	222
24	243	248	220	232	232	409	660	883	280	212	241	232
25	368	248	225	229	232	380	774	828	275	215	229	232
26	309	243	255	227	241	359	752	960	270	207	248	232
27	265	239	273	225	280	493	710	900	265	205	217	232
28	253	239	248	222	452	472	697	841	260	205	220	232
29	248	236	241	222	---	432	701	778	255	203	258	232
30	243	234	234	220	---	406	714	731	253	200	275	232
31	260	---	229	225	---	402	---	722	---	200	232	---
TOTAL	7606	7821	7156	7246	6508	12721	19086	25897	12714	6898	6303	6289
MEAN	245	261	231	234	232	410	636	835	424	223	203	210
MAX	368	339	273	255	452	739	992	1030	756	250	275	234
MIN	227	234	217	220	215	314	455	668	253	200	184	189
CFSM	1.53	1.63	1.44	1.46	1.45	2.56	3.98	5.22	2.65	1.39	1.27	1.31
IN.	1.77	1.82	1.66	1.68	1.51	2.96	4.44	6.02	2.96	1.60	1.47	1.46
AC-FT	15090	15510	14190	14370	12910	25230	37860	51370	25220	13680	12500	12470

CAL YR 1976 TOTAL 224194 MEAN 613 MAX 3810 MIN 217 CFSM 3.83 IN 52.13 AC-FT 444700
WTR YR 1977 TOTAL 126245 MEAN 346 MAX 1030 MIN 184 CFSM 2.16 IN 29.35 AC-FT 250400

14159200 SOUTH FORK MCKENZIE RIVER ABOVE COUGAR LAKE, NEAR RAINBOW, OR—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.—
WATER TEMPERATURES: November 1957 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURES: Maximum, 17.0°C July 8, 1968; minimum, 0.0°C Dec. 7-11, 1972.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURES: Maximum, 16.5°C July 31, Aug. 14, 17; minimum, 1.5°C Jan. 8, 9.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10.5	7.5	8.0	7.0	5.0	4.0	4.0	3.5	4.5	3.5	4.5	3.5
2	9.0	8.0	8.0	7.0	4.5	4.0	4.5	4.0	4.0	3.0	4.5	4.0
3	8.5	7.5	7.5	6.5	5.0	4.0	4.5	4.0	4.5	3.0	5.0	3.5
4	8.0	5.5	7.5	6.0	5.0	4.5	4.5	4.0	4.5	3.0	6.0	4.0
5	8.5	6.0	7.0	6.0	5.0	4.5	4.0	2.0	4.5	3.0	6.0	3.5
6	9.0	6.5	7.5	6.5	5.0	4.5	2.5	2.0	5.0	3.5	5.5	3.5
7	9.5	7.0	7.5	6.0	5.0	4.5	2.5	2.0	5.5	3.5	5.5	4.5
8	9.5	7.0	7.5	7.0	5.5	4.5	2.5	1.5	6.0	4.5	5.5	4.5
9	9.0	6.5	7.0	6.0	5.5	4.5	2.0	1.5	6.0	4.5	5.0	3.5
10	9.0	6.5	7.0	6.0	5.0	4.0	3.5	2.0	6.0	5.0	5.5	3.5
11	9.0	7.0	7.5	6.5	4.5	4.0	4.0	3.5	6.0	4.0	6.0	3.5
12	8.0	6.0	6.5	5.5	5.0	4.0	4.5	4.0	6.5	4.5	4.5	3.5
13	8.5	6.0	6.5	5.0	4.5	4.0	4.5	4.0	6.5	5.5	5.0	3.5
14	8.0	6.0	7.5	6.5	5.0	4.0	4.0	3.5	6.0	4.0	5.0	3.5
15	7.5	5.5	8.0	7.0	5.0	4.5	4.0	3.5	6.0	4.0	6.0	3.5
16	7.5	5.5	8.0	7.5	5.5	4.5	4.5	3.5	6.0	4.5	5.5	3.5
17	7.0	5.0	8.0	7.0	5.0	4.5	4.5	4.0	6.5	5.0	5.0	4.0
18	7.0	4.5	8.0	7.0	5.0	4.0	4.5	4.0	6.0	4.0	5.5	4.0
19	7.0	4.5	7.0	6.0	4.0	3.0	4.5	4.0	6.0	4.0	6.0	4.5
20	7.0	4.5	6.5	5.0	3.5	3.0	4.5	3.5	6.5	5.0	6.0	4.5
21	7.0	5.0	7.0	6.5	4.5	3.0	4.5	4.5	6.0	4.5	7.0	4.0
22	6.5	5.0	7.0	6.0	4.5	3.5	4.5	3.5	5.0	4.5	7.5	4.0
23	7.0	6.0	6.5	5.5	5.0	4.5	3.5	3.0	4.5	4.0	6.0	4.5
24	6.5	5.5	6.5	5.5	4.5	4.0	3.5	3.0	5.0	4.0	6.0	4.5
25	7.0	6.0	7.0	6.0	5.5	4.0	3.5	2.5	5.0	4.0	6.5	4.5
26	6.5	5.5	5.5	4.0	5.0	4.5	3.5	2.5	5.5	4.0	6.5	4.5
27	6.5	5.0	4.0	3.5	5.0	4.5	3.5	2.0	6.0	4.5	5.5	3.5
28	6.5	5.0	4.0	3.5	4.5	4.0	3.5	2.0	5.0	3.5	5.0	3.5
29	7.0	6.0	4.5	4.0	5.0	4.5	3.5	2.0	---	---	6.0	4.0
30	7.0	6.0	4.5	4.0	4.5	3.5	4.0	2.5	---	---	6.5	4.5
31	7.5	6.0	---	---	3.5	3.0	5.0	3.5	---	---	5.0	4.0
MONTH	10.5	4.5	8.0	3.5	5.5	3.0	5.0	1.5	6.5	3.0	7.5	3.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.0	4.5	7.0	6.0	9.0	7.5	14.5	10.5	16.0	10.5	13.0	8.5
2	7.0	4.5	8.0	6.0	10.0	6.0	14.5	10.0	15.5	11.0	13.0	9.5
3	8.0	4.5	6.5	5.0	9.5	7.5	12.0	9.0	16.0	10.5	13.0	10.0
4	8.5	4.5	6.0	4.0	11.5	8.0	11.5	9.0	16.0	10.5	14.0	10.5
5	8.0	4.5	6.0	4.5	13.5	8.0	11.5	8.0	16.0	10.0	14.0	11.0
6	8.0	4.5	7.5	4.5	13.0	9.5	14.5	8.5	16.0	10.5	13.5	10.5
7	8.0	5.0	6.5	4.5	11.0	10.0	15.0	8.5	14.5	10.5	13.0	9.5
8	6.5	5.5	9.0	5.0	13.0	9.5	15.0	9.5	16.0	10.5	12.5	9.0
9	6.0	4.5	7.0	5.0	13.0	8.5	14.0	10.0	15.5	10.0	12.5	8.0
10	7.0	4.5	6.0	5.5	13.0	8.5	15.0	9.0	15.5	10.0	12.5	8.5
11	8.0	5.5	6.5	5.0	13.0	9.5	15.5	9.0	16.0	10.5	12.5	9.0
12	8.5	4.5	7.5	5.0	13.5	9.0	15.0	10.5	16.0	10.5	12.5	9.0
13	7.0	5.0	8.5	5.5	14.0	8.5	15.0	8.5	15.0	11.0	12.5	8.5
14	7.5	4.5	7.5	6.0	14.0	8.5	15.5	9.0	16.5	10.5	12.5	9.5
15	7.5	5.5	7.0	5.0	13.0	8.0	16.0	9.5	16.0	11.0	10.5	9.5
16	7.0	5.0	7.0	4.5	14.0	8.0	15.5	9.5	16.0	11.0	11.0	8.5
17	7.0	4.0	6.5	5.0	13.5	9.0	15.0	10.0	16.5	11.0	10.5	8.5
18	7.0	3.5	7.5	5.0	14.0	9.5	12.5	10.5	15.5	11.0	10.5	9.0
19	7.5	3.5	9.5	5.5	14.5	10.0	15.0	9.5	15.0	11.0	11.0	9.0
20	8.0	4.5	9.0	6.0	11.5	9.5	15.5	10.0	15.5	11.0	10.5	9.0
21	8.0	5.5	9.5	6.5	15.0	9.0	16.0	10.0	15.0	11.5	10.0	8.5
22	8.0	5.5	7.5	6.0	15.5	10.0	16.0	10.0	14.5	10.5	10.0	7.5
23	8.0	6.0	7.0	6.0	15.0	10.0	14.0	10.5	14.0	10.0	9.0	8.0
24	8.5	5.5	8.5	6.0	15.5	9.0	14.0	10.0	12.5	11.0	10.0	9.0
25	7.5	6.0	8.0	5.5	16.0	10.0	15.5	10.5	11.0	10.0	10.0	8.5
26	8.5	5.5	7.5	6.0	15.5	9.5	16.0	10.5	11.5	10.0	10.0	7.5
27	9.0	5.0	7.0	5.5	15.5	10.0	16.0	10.5	11.0	10.0	9.5	8.5
28	8.0	6.0	8.5	5.5	16.0	9.5	14.0	10.5	12.0	10.0	9.5	9.0
29	8.5	6.0	9.5	5.0	15.5	10.0	15.0	9.5	12.5	10.5	9.0	8.5
30	8.5	6.0	9.5	6.0	15.0	9.5	15.5	9.5	13.5	11.0	9.5	8.0
31	---	---	10.5	7.0	---	---	16.5	10.0	12.0	9.0	---	---
MONTH	9.0	3.5	10.5	4.0	16.0	6.0	16.5	8.0	16.5	9.0	14.0	7.5

14159400 COUGAR LAKE NEAR RAINBOW, OR

LOCATION.--Lat 44°07'40", long 122°14'25", in SE¼SE¼ sec.31, T.16 S., R.5 E., Lane County, Hydrologic Unit 17090004, Willamette National Forest, in intake tower near left end of Cougar Dam on South Fork McKenzie River, 2.7 mi (4.3 km) south of Rainbow, and at mile 4.5 (7.2 km).

DRAINAGE AREA.--207 mi² (536 km²).

PERIOD OF RECORD.--October 1963 to current year. Prior to October 1971, published as Cougar Reservoir near Rainbow.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway completed in 1963 by the Corps of Engineers; storage began September 1963. Total capacity is 219,100 acre-ft (270 hm³) at elevation 1,699 ft (517.9 m), maximum pool, and usable capacity is 164,800 acre-ft (203 hm³) between elevations 1,516 ft (462.1 m), minimum power pool, and 1,699 ft (517.9 m). Reservoir used for flood control and power generation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 214,100 acre-ft (264 hm³) June 29, 1977, elevation, 1,695.06 ft (516.654 m); minimum, 33,690 acre-ft (41.5 hm³) Oct. 31 to Nov. 2, 1965, elevation, 1,475.40 ft (449.702 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 214,100 acre-ft (264 hm³) June 29, elevation, 1,695.06 ft (516.654 m); minimum, 60,100 acre-ft (74.1 hm³) Jan. 12, 13, elevation, 1,525.88 ft (465.088 m).

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,510	50,920	1,650	162,300
1,550	75,940	1,696	215,300
1,600	114,800		

ELEVATION, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1643.76	1598.92	1535.14	1526.18	1528.38	1541.61	1585.00	1640.48	1692.72	1694.92	1684.88	1658.55
2	1642.41	1597.40	1534.38	1526.34	1528.59	1542.75	1586.58	1642.87	1693.46	1694.68	1684.51	1657.36
3	1641.02	1595.77	1534.00	1526.40	1528.76	1543.92	1588.00	1645.46	1694.16	1694.45	1684.12	1656.12
4	1639.51	1594.07	1533.54	1526.41	1528.96	1544.93	1589.57	1647.78	1694.47	1694.18	1683.72	1654.85
5	1638.10	1592.28	1533.06	1526.37	1529.14	1545.93	1591.65	1649.82	1694.48	1693.92	1683.28	1653.56
6	1636.67	1590.48	1532.52	1526.31	1529.30	1547.08	1594.12	1651.63	1694.52	1693.66	1682.85	1652.24
7	1635.24	1588.70	1532.02	1526.26	1529.50	1548.77	1597.20	1653.22	1694.53	1693.38	1682.48	1650.90
8	1633.77	1587.70	1531.66	1526.16	1529.64	1551.76	1600.67	1654.69	1694.58	1693.10	1682.08	1649.50
9	1632.30	1584.82	1531.22	1526.08	1529.80	1554.79	1603.37	1656.16	1694.80	1692.83	1681.72	1648.15
10	1630.80	1582.74	1530.74	1525.98	1530.00	1556.80	1605.45	1658.49	1694.90	1692.56	1681.30	1646.74
11	1629.28	1580.67	1530.28	1525.91	1530.20	1558.45	1607.30	1660.88	1694.96	1692.26	1680.87	1645.42
12	1628.47	1578.28	1529.68	1525.88	1530.36	1560.29	1609.01	1662.89	1695.03	1691.98	1680.29	1644.00
13	1628.33	1576.20	1528.16	1526.07	1530.61	1561.71	1610.98	1664.65	1695.03	1691.68	1679.48	1642.57
14	1626.80	1574.20	1528.64	1526.17	1530.81	1562.95	1612.71	1666.43	1695.02	1691.36	1678.70	1641.12
15	1625.27	1572.42	1528.09	1526.22	1531.18	1564.06	1614.36	1668.24	1695.01	1690.93	1677.70	1639.64
16	1623.70	1570.60	1527.54	1526.24	1531.62	1565.01	1616.07	1670.00	1695.01	1690.40	1676.61	1638.21
17	1622.13	1568.60	1527.29	1526.28	1532.08	1565.95	1617.66	1672.04	1694.99	1689.80	1675.47	1636.75
18	1620.58	1566.50	1527.18	1526.32	1532.54	1566.92	1619.04	1673.95	1695.00	1689.40	1674.33	1635.31
19	1618.89	1564.36	1527.06	1526.38	1533.00	1568.02	1620.38	1675.68	1694.96	1688.96	1673.23	1633.91
20	1617.30	1562.20	1526.94	1526.42	1533.52	1569.09	1621.61	1677.34	1694.93	1688.61	1672.07	1632.60
21	1615.66	1559.82	1526.77	1526.46	1534.12	1570.09	1622.84	1679.03	1694.96	1688.14	1670.87	1631.22
22	1614.04	1557.30	1526.66	1526.47	1534.78	1571.21	1624.13	1680.82	1694.99	1687.52	1669.62	1629.72
23	1612.39	1554.68	1526.58	1526.48	1535.48	1572.67	1625.59	1682.58	1694.99	1686.90	1668.42	1628.46
24	1610.86	1552.00	1526.46	1526.60	1535.94	1573.76	1627.26	1683.97	1695.00	1686.30	1667.44	1627.48
25	1609.90	1549.30	1526.42	1526.82	1536.54	1574.92	1629.40	1685.04	1695.02	1685.90	1666.37	1626.47
26	1608.56	1546.50	1526.54	1527.07	1537.30	1575.98	1631.38	1686.47	1695.02	1685.76	1665.29	1625.29
27	1607.00	1543.50	1526.72	1527.29	1538.24	1577.80	1633.14	1687.80	1695.03	1685.64	1664.11	1624.00
28	1605.36	1540.55	1526.77	1527.50	1540.28	1579.32	1634.80	1688.98	1695.04	1685.56	1663.00	1623.08
29	1603.70	1538.90	1526.32	1527.73	---	1580.73	1636.53	1690.00	1695.06	1685.46	1661.92	1622.03
30	1602.00	1536.06	1526.30	1527.92	---	1581.00	1638.24	1690.88	1695.05	1685.31	1660.96	1621.01
31	1600.38	---	1526.24	1528.18	---	1583.30	---	1691.72	---	1685.18	1659.75	---
MEAN	1622.72	1570.18	1529.06	1526.55	1532.17	1563.28	1613.13	1669.03	1694.76	1690.02	1674.76	1639.21
MAX	1643.76	1598.92	1535.14	1528.18	1540.28	1583.30	1638.24	1691.72	1695.06	1694.92	1684.88	1658.55
MIN	1600.38	1536.06	1526.24	1525.88	1528.38	1541.61	1585.00	1640.48	1692.72	1685.18	1659.75	1621.01
(†)	115,100	66,520	60,320	61,510	69,300	100,900	150,300	209,900	214,100	201,900	172,700	133,600
(‡)	-42,100	-48,580	-6,200	+1,190	+7,790	+31,600	+49,400	+59,600	+4,200	-12,200	-29,200	-39,100

CAL YR 1976 MEAN 1628.63 MAX 1690.23 MIN 1526.24 AC-FT‡ -9,300
WTR YR 1977 MEAN 1610.84 MAX 1695.06 MIN 1525.88 AC-FT‡ -23,600

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14159500 SOUTH FORK MCKENZIE RIVER NEAR RAINBOW, OR

LOCATION.--Lat 44°08'10", long 122°14'50", in NE¼ sec.31, T.16 S., R.5 E., Lane County, Hydrologic Unit 17090004, in Willamette National Forest, on right bank 0.2 mi (0.3 km) upstream from Cougar Creek, 0.6 mi (1.0 km) downstream from Cougar Dam, 2.1 mi (3.4 km) south of Rainbow, and at mile 3.9 (6.3 km).

DRAINAGE AREA.--208 mi^2 (539 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1947 to current year.

REVISED RECORDS.--WSP 1638: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,236.42 ft (376.861 m) above mean sea level (Bureau of Public Roads bench mark). Oct. 1 to Nov. 4, 1947, nonrecording gage at site 40 ft (12 m) upstream at datum 0.80 ft (0.244 m) higher.

REMARKS.--Water-discharge records good. Flow regulated since 1963 by Cougar Lake (see station 14159400), usable capacity, 165,000 acre-ft (203 hm^3). No diversion above station.

AVERAGE DISCHARGE.--30 years, 884 ft^3/s (25.03 m^3/s), 57.71 in/yr (1,466 mm/yr), 640,500 acre-ft/yr (790 hm^3/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,600 ft^3/s (498 m^3/s) Dec. 11, 1956, gage height, 8.66 ft (2.640 m), from rating curve extended above 8,100 ft^3/s (229 m^3/s); maximum gage height, 8.90 ft (2.713 m) Dec. 22, 1955 (backwater from debris); minimum discharge, 17 ft^3/s (0.48 m^3/s) Nov. 18, 1965; minimum daily, 85 ft^3/s (2.41 m^3/s) Apr. 26-28, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 24,500 ft^3/s (694 m^3/s) Dec. 28, 1945, gage height, 8.8 ft (2.68 m), from floodmarks, at Corps of Engineers gage at site 40 ft (12 m) upstream at datum 0.80 ft (0.244 m) higher; gage height at present site and datum, about 9.3 ft (2.83 m), computed by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,210 ft^3/s (34.3 m^3/s) Nov. 28, gage height, 2.48 ft (0.756 m); minimum, 43 ft^3/s (1.22 m^3/s) Mar. 9; minimum daily, 85 ft^3/s (2.41 m^3/s) Apr. 26-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	883	940	518	285	201	108	97	87	375	366	380	820
2	883	940	468	281	201	108	97	87	409	419	434	820
3	883	950	340	285	201	108	100	92	409	419	434	829
4	892	950	389	292	201	105	102	92	639	419	440	829
5	892	960	389	285	201	92	90	97	788	419	434	829
6	892	960	394	285	201	105	90	100	764	419	440	838
7	901	970	389	288	201	105	90	100	740	419	440	829
8	901	980	394	288	205	92	92	102	620	419	434	838
9	901	1000	394	292	205	87	92	105	462	419	440	847
10	910	1020	389	288	201	105	90	105	512	419	440	847
11	910	1010	394	288	201	102	90	102	473	419	440	847
12	596	990	394	288	205	105	90	90	451	419	529	847
13	327	1000	399	292	205	97	90	95	468	419	627	856
14	910	1010	399	292	201	100	90	95	440	424	627	856
15	910	1020	404	292	145	92	87	92	424	484	740	856
16	910	1020	399	292	105	90	90	95	424	552	788	865
17	910	1020	327	292	105	100	87	95	389	558	780	865
18	892	1030	285	292	108	97	87	92	380	468	804	865
19	901	1040	285	288	105	100	90	92	394	456	772	874
20	901	1040	285	288	105	97	92	92	366	484	804	874
21	901	1090	288	288	105	97	90	87	349	529	804	874
22	910	1110	285	288	108	92	90	87	340	577	804	874
23	910	1120	288	288	110	100	90	209	344	577	804	883
24	910	1130	285	235	110	162	87	314	318	577	804	883
25	920	1140	285	201	113	92	87	414	318	456	804	883
26	910	1160	288	201	110	95	85	419	314	318	804	883
27	920	1180	288	201	113	100	85	419	309	318	812	883
28	930	1180	288	201	115	97	85	419	296	285	812	883
29	930	1090	404	201	---	97	87	419	300	265	812	892
30	930	712	281	201	---	100	87	414	309	318	820	892
31	940	---	281	201	---	97	---	414	---	318	820	---
TOTAL	27216	30762	10896	8279	4387	3124	2706	5522	13124	13378	20127	25761
MEAN	878	1025	351	267	157	101	90.2	178	437	432	649	859
MAX	940	1180	518	292	205	162	102	419	788	577	820	892
MIN	327	712	281	201	105	87	85	87	296	285	380	820
AC-FT	53980	61020	21610	16420	8700	6200	5370	10950	26030	26540	39920	51100
MEAN†	193	209	251	286	297	615	920	1,147	508	233	174	202
CFSM†	.93	1.00	1.21	1.38	1.43	2.96	4.42	5.51	2.44	1.12	.84	.97
IN.†	1.07	1.12	1.39	1.59	1.49	3.41	4.94	6.36	2.73	1.29	.97	1.08
AC-FT†	11,880	12,440	15,410	17,610	16,490	37,800	54,770	70,550	30,230	14,340	10,720	12,000

CAL YR 1976 TOTAL 277,969 MEAN 759 MAX 3,550 MIN 281 AC-FT 551,400 MEAN† 747 CFSM† 3.59 IN.† 48.88 AC-FT† 542,100
WTR YR 1977 TOTAL 165,282 MEAN 453 MAX 1,180 MIN 85 AC-FT 327,800 MEAN† 420 CFSM† 2.02 IN.† 27.43 AC-FT† 304,240

† Adjusted for change in contents in Cougar Lake.

14159500 SOUTH FORK MCKENZIE RIVER NEAR RAINBOW, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: July 1955 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 20.0°C July 28, 1958; minimum, 0.5°C Jan. 20-23, 1962.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 12.5°C Oct. 6-27, Sept. 26-30; minimum, 3.5°C Jan. 27 to Feb. 6.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.0	11.5	12.0	12.0	9.5	9.0	5.5	5.0	4.0	3.5	6.0	5.0
2	12.0	11.5	12.0	12.0	9.0	9.0	5.5	5.5	4.0	3.5	5.5	4.5
3	12.0	11.5	12.0	12.0	9.0	8.5	5.5	5.0	4.5	3.5	6.0	5.0
4	12.0	11.5	12.0	11.5	8.5	7.5	5.5	5.0	4.5	3.5	7.0	5.0
5	12.0	11.5	12.0	11.5	8.0	8.0	5.0	5.0	4.0	3.5	7.5	4.5
6	12.5	12.0	12.0	11.5	8.0	8.0	5.0	5.0	4.5	3.5	6.0	4.5
7	12.5	12.0	12.0	12.0	8.0	8.0	5.0	4.5	4.5	4.0	5.5	5.0
8	12.5	12.0	12.0	12.0	8.0	7.0	5.0	4.5	4.5	4.0	6.0	5.5
9	12.5	11.5	12.0	11.5	7.5	7.0	4.5	4.5	4.5	4.0	6.5	4.5
10	12.5	12.0	12.0	11.5	7.5	7.0	5.0	4.5	4.5	4.0	6.5	5.0
11	12.5	12.0	12.0	11.5	7.0	7.0	5.0	4.5	4.5	4.0	7.5	5.0
12	12.5	11.5	12.0	12.0	7.0	7.0	5.0	4.5	4.5	4.0	6.0	4.5
13	12.5	11.0	12.0	12.0	7.0	6.5	5.0	4.5	5.0	4.0	7.0	4.5
14	12.5	12.0	12.0	11.5	6.5	6.5	4.5	4.5	5.0	4.0	6.5	4.5
15	12.5	12.0	12.0	11.5	6.5	6.5	5.0	5.0	5.5	4.0	8.0	4.5
16	12.5	12.0	12.0	11.5	6.5	6.0	5.0	5.0	6.5	4.5	8.0	4.5
17	12.5	12.0	12.0	11.5	6.0	6.0	5.0	5.0	7.0	4.5	6.5	5.0
18	12.5	12.0	12.0	11.5	6.0	6.0	5.0	5.0	7.0	4.5	6.0	5.0
19	12.5	12.0	12.0	11.5	6.0	5.5	5.0	5.0	7.0	4.5	7.0	5.0
20	12.5	12.0	12.0	11.5	6.0	5.5	5.0	5.0	5.5	5.0	6.5	5.0
21	12.5	12.0	11.5	11.5	6.0	5.5	5.0	5.0	5.5	5.0	7.5	5.0
22	12.5	12.0	11.5	11.5	6.0	5.5	5.0	5.0	6.0	5.0	9.0	5.0
23	12.5	12.0	11.5	11.0	6.0	5.5	5.0	5.0	5.0	4.5	7.0	5.0
24	12.5	12.0	11.5	11.0	5.5	5.5	5.0	5.0	5.5	5.0	6.0	5.0
25	12.5	12.0	11.0	10.5	5.5	5.5	5.0	5.0	5.5	4.5	8.5	5.0
26	12.5	12.0	11.0	10.0	5.5	5.5	5.0	5.0	5.5	5.0	6.5	5.0
27	12.5	12.0	10.0	10.0	5.5	5.5	5.0	3.5	6.0	5.0	7.0	5.0
28	12.0	12.0	10.0	10.0	5.5	5.5	4.0	3.5	6.0	5.0	7.0	4.5
29	12.0	12.0	10.0	9.5	5.5	5.5	4.0	3.5	---	---	8.5	5.0
30	12.0	12.0	9.5	9.5	5.5	5.0	4.0	3.5	---	---	9.0	5.0
31	12.0	12.0	---	---	5.5	5.0	4.0	3.5	---	---	6.0	5.0
MONTH	12.5	11.0	12.0	9.5	9.5	5.0	5.5	3.5	7.0	3.5	9.0	4.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.5	5.0	6.5	5.5	7.5	5.5	7.0	6.0	8.5	6.5	9.0	7.5
2	9.0	5.0	9.0	5.5	7.0	5.5	7.5	6.0	8.0	6.5	9.0	7.5
3	10.0	5.0	8.0	5.5	6.5	5.5	7.0	6.0	8.0	6.5	9.0	7.5
4	9.5	5.0	7.0	5.5	6.5	5.5	7.0	6.0	8.5	6.5	9.0	8.0
5	11.0	5.0	7.0	5.5	6.5	5.5	7.0	6.5	8.5	6.5	9.0	8.0
6	10.0	5.0	10.0	5.5	6.5	5.5	7.5	6.5	8.5	6.5	9.0	8.5
7	9.5	5.0	7.5	5.0	6.5	6.0	7.5	6.0	8.5	6.5	9.0	8.5
8	7.0	5.5	10.0	5.5	6.5	6.0	7.5	6.0	8.5	6.5	9.5	8.0
9	8.5	5.5	7.5	5.0	6.5	5.5	7.5	6.5	8.5	6.5	9.5	8.0
10	9.5	5.0	7.0	5.5	6.5	6.0	7.5	6.5	8.5	6.5	10.0	8.0
11	9.0	5.0	8.5	5.5	7.0	6.0	7.5	6.5	8.5	6.0	9.5	8.5
12	9.5	5.0	8.5	5.5	7.0	6.0	7.0	6.0	8.0	6.0	10.0	8.5
13	8.0	5.0	9.5	5.5	7.0	5.5	7.5	6.0	8.0	7.0	10.5	8.5
14	9.5	5.0	8.5	5.5	7.0	6.0	7.5	6.5	8.0	7.0	10.0	8.5
15	8.5	5.5	7.5	5.5	7.0	6.0	7.5	6.5	8.0	7.0	10.0	9.0
16	7.5	5.0	8.5	5.5	7.0	6.0	7.5	6.5	8.0	7.0	10.5	9.5
17	10.0	5.0	7.5	5.5	7.0	6.0	7.5	6.5	8.0	7.0	10.5	9.5
18	8.5	5.0	8.0	6.0	7.0	6.5	7.0	6.5	8.0	7.0	10.5	9.0
19	10.0	5.0	10.5	6.0	7.5	6.0	8.0	6.0	8.0	7.5	11.0	10.0
20	9.5	5.0	9.5	5.5	6.5	5.5	8.0	6.0	8.0	7.5	11.0	10.5
21	7.5	5.5	10.0	6.0	7.5	6.0	7.5	6.5	8.0	7.5	11.0	10.0
22	8.5	5.5	7.5	5.5	7.5	6.5	7.5	6.5	8.0	7.5	11.5	10.5
23	7.5	5.5	8.0	5.5	7.5	6.0	7.5	6.5	8.0	7.0	11.5	10.5
24	9.0	5.5	10.0	5.5	7.5	6.0	7.5	6.5	8.0	6.5	12.0	11.0
25	9.5	5.5	6.5	5.5	7.5	6.0	8.5	6.5	8.0	7.5	12.0	11.5
26	10.5	5.5	6.5	5.5	8.0	6.0	8.5	6.5	8.0	7.5	12.5	11.5
27	10.5	5.0	6.0	5.0	7.5	6.5	8.5	6.0	8.0	7.5	12.5	12.0
28	9.0	5.5	6.5	5.5	7.5	6.0	9.0	6.5	8.0	7.5	12.5	12.0
29	9.5	5.5	7.0	5.5	7.5	6.0	9.5	6.5	8.0	8.0	12.5	12.0
30	10.5	5.5	7.0	5.5	8.0	6.0	8.5	6.0	8.5	7.5	12.5	12.5
31	---	---	6.5	5.5	---	---	8.5	6.5	8.5	7.5	---	---
MONTH	11.0	5.0	10.5	5.0	8.0	5.5	9.5	6.0	8.5	6.0	12.5	7.5

14161100 BLUE RIVER BELOW TIDBITS CREEK, NEAR BLUE RIVER, OR

LOCATION.--Lat 44°13'05", long 122°15'50", in SE¼NE¼ sec.36, T.15 S., R.4 E., Lane County, Hydrologic Unit 17090004, in Willamette National Forest, on left bank 0.2 mi (0.3 km) downstream from Tidbits Creek, 5.5 mi (8.8 km) northeast of town of Blue River, and at mile 8.5 (13.7 km).

DRAINAGE AREA.--45.8 mi^2 (118.6 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,386.90 ft (422.727 m) above mean sea level (Corps of Engineers bench mark).

REMARKS.--Water-discharge records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--14 years, 264 ft^3/s (7.476 m^3/s), 78.28 in/yr (1,988 mm/yr), 191,300 acre-ft/yr (236 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,400 ft^3/s (351 m^3/s) Dec. 22, 1964, gage height, 15.32 ft (4.670 m), from floodmarks, from rating curve extended above 2,800 ft^3/s (79.3 m^3/s) on basis of slope-area measurement of peak flow; minimum, 8.2 ft^3/s (0.23 m^3/s) Sept. 28, 29, Oct. 2-4, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,110 ft^3/s (31.4 m^3/s) Mar. 8, gage height, 5.60 ft (1.707 m), no peak above base of 2,000 ft^3/s (56.6 m^3/s); minimum, 11 ft^3/s (0.31 m^3/s) Oct. 14-24, Aug. 18-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	147	25	38	34	254	321	254	216	41	17	24
2	12	98	24	48	31	181	300	330	190	38	17	20
3	15	63	22	48	30	171	257	445	177	37	16	21
4	14	47	21	43	29	154	342	453	211	37	16	21
5	13	37	21	37	29	149	516	395	204	37	16	18
6	13	32	21	33	29	179	620	324	188	36	16	17
7	12	29	20	33	27	468	697	285	168	34	15	16
8	12	26	26	30	26	829	687	252	149	33	16	16
9	12	25	35	28	26	697	496	254	134	32	15	14
10	12	23	30	30	26	382	355	362	122	31	14	14
11	12	21	27	30	26	274	306	358	114	31	14	13
12	12	21	29	36	26	291	300	291	105	30	13	13
13	12	19	28	73	29	244	333	246	96	30	12	13
14	11	24	26	81	29	199	291	223	90	28	12	12
15	11	90	25	75	28	171	265	223	84	27	12	12
16	11	112	25	73	26	154	274	233	79	25	12	12
17	11	73	24	75	25	143	241	339	75	25	12	14
18	11	72	23	78	25	141	211	342	71	25	11	17
19	11	60	22	73	24	181	188	285	67	25	11	25
20	11	50	21	67	29	208	181	254	64	25	11	36
21	11	44	20	61	47	183	183	241	64	23	11	36
22	11	39	20	55	55	228	199	226	60	23	11	32
23	11	35	22	50	47	309	236	238	58	22	11	68
24	20	32	21	47	46	260	279	221	54	22	28	168
25	127	31	26	43	56	223	312	194	53	22	23	129
26	68	30	84	41	100	194	276	271	49	21	33	89
27	35	27	114	37	442	413	233	279	48	21	22	63
28	26	26	73	35	472	330	223	312	46	20	24	85
29	25	25	58	34	---	254	223	276	44	19	34	84
30	22	24	49	33	---	213	236	236	42	18	60	98
31	42	---	42	33	---	204	---	211	---	17	31	---
TOTAL	638	1382	1024	1498	1819	8281	9581	8853	3122	855	566	1200
MEAN	20.6	46.1	33.0	48.3	65.0	267	319	286	104	27.6	18.3	40.0
MAX	127	147	114	81	472	829	697	453	216	41	60	168
MIN	11	19	20	28	24	141	181	194	42	17	11	12
CFSM	.45	1.01	.72	1.06	1.42	5.83	6.97	6.25	2.27	.60	.40	.87
IN.	.52	1.12	.83	1.22	1.48	6.73	7.78	7.19	2.54	.69	.46	.97
AC-FT	1270	2740	2030	2970	3610	16430	19000	17560	6190	1700	1120	2380

CAL YR 1976 TOTAL 68810 MEAN 188 MAX 2710 MIN 11 CFSM 4.11 IN 55.89 AC-FT 136500
WTR YR 1977 TOTAL 38819 MEAN 106 MAX 829 MIN 11 CFSM 2.31 IN 31.53 AC-FT 77000

14161100 BLUE RIVER BELOW TIDBITS CREEK, NEAR BLUE RIVER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: September 1963 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 23.0°C Aug. 3, 4, 1974; minimum, 0.0°C on several days in 1969, 1971, 1972, Jan. 8, 9, 1973, Jan. 1-13, 1974, Feb. 4-7, 1976.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.5°C Aug. 15-17; minimum, 0.5°C Jan. 9.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	13.5	10.5	9.5	3.5	2.0	3.5	2.5	4.5	3.0	4.5	3.0
2	15.0	13.0	11.5	10.0	3.5	2.5	4.0	3.0	3.5	2.0	4.5	3.0
3	13.5	11.5	10.5	9.0	4.0	2.5	4.5	3.5	3.5	2.0	5.0	2.5
4	13.0	9.5	10.0	8.0	5.5	3.5	4.5	3.5	4.0	2.0	6.5	4.0
5	14.0	9.5	10.0	7.5	5.5	3.5	3.5	1.0	4.0	2.5	6.0	3.5
6	14.5	10.5	11.0	8.0	4.5	2.5	1.5	1.0	5.5	3.5	5.5	3.5
7	14.5	10.5	10.0	7.5	6.0	4.0	1.5	1.0	4.5	3.0	5.5	4.5
8	14.0	11.0	11.0	8.5	5.5	4.0	1.0	1.0	5.0	4.0	6.0	5.0
9	14.0	10.0	10.0	7.5	5.0	3.5	1.0	0.5	6.0	4.0	5.5	4.0
10	13.0	10.0	9.5	7.5	4.0	3.0	2.0	1.0	7.0	4.5	6.0	4.0
11	13.5	11.0	10.0	7.0	3.5	2.5	3.0	2.0	7.0	5.0	7.0	4.0
12	13.0	9.5	8.0	5.5	3.0	2.5	4.0	3.0	8.5	5.5	5.0	4.0
13	12.5	9.0	7.5	5.5	3.5	2.5	4.0	2.5	8.5	6.0	6.0	4.0
14	12.0	8.5	9.0	6.5	4.0	2.5	4.0	3.0	6.5	4.5	6.0	4.0
15	11.5	8.0	10.5	8.0	4.0	3.0	4.5	3.5	6.5	4.5	6.5	3.5
16	10.5	7.5	11.5	9.5	4.5	3.5	5.0	3.5	6.5	4.5	6.0	3.0
17	9.0	6.5	11.0	9.0	4.0	3.5	5.5	3.5	7.5	5.0	5.0	3.5
18	8.0	5.5	11.5	9.0	4.5	3.5	5.5	4.0	6.5	4.0	5.0	3.5
19	8.0	5.0	9.5	8.0	3.5	2.5	5.0	4.0	6.5	3.5	6.0	4.5
20	8.0	5.0	8.5	5.5	2.5	1.5	5.0	3.5	5.5	4.0	6.0	4.5
21	8.5	5.0	9.0	6.5	3.0	1.5	5.5	4.5	5.5	4.5	7.5	4.0
22	8.0	5.5	9.0	6.5	3.0	2.0	4.5	3.5	4.5	3.5	8.5	4.0
23	8.5	6.5	8.0	5.5	4.5	3.0	3.5	2.5	4.0	3.5	6.0	4.0
24	8.0	5.5	7.5	5.0	4.0	3.0	3.5	2.0	4.5	3.0	6.5	4.0
25	8.5	7.0	8.0	6.5	4.5	3.0	3.0	2.0	4.0	3.0	6.0	4.0
26	9.0	7.0	7.0	4.0	5.5	4.5	2.5	1.5	4.5	3.0	5.5	4.5
27	8.5	5.5	3.5	2.0	6.0	5.0	2.5	1.0	5.5	4.5	5.0	3.5
28	8.5	5.5	3.0	1.5	4.5	4.0	2.5	1.0	5.0	4.0	5.0	3.5
29	9.0	7.5	3.5	2.0	5.5	4.5	2.5	1.0	---	---	6.0	4.0
30	10.5	8.5	3.5	2.0	4.5	3.5	3.0	1.0	---	---	6.5	4.0
31	10.0	9.0	---	---	3.0	2.5	4.0	2.5	---	---	5.0	4.0
MONTH	17.0	5.0	11.5	1.5	6.0	1.5	5.5	0.5	8.5	2.0	8.5	2.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.5	4.5	7.5	7.0	10.0	8.5	18.0	15.0	20.0	16.0	16.5	12.5
2	6.5	4.5	8.5	6.5	11.0	7.5	17.5	14.0	21.0	17.0	16.0	13.5
3	7.5	4.0	7.0	5.5	9.5	8.5	15.0	13.5	21.0	16.5	16.5	14.5
4	8.0	4.5	6.0	5.0	11.0	9.0	14.5	12.5	20.5	16.5	17.0	15.0
5	7.5	4.5	6.5	5.0	14.0	9.0	14.0	11.5	20.5	16.5	18.0	16.0
6	7.5	4.5	7.5	5.0	14.5	10.5	16.0	11.5	21.0	16.5	18.0	15.0
7	7.5	4.5	7.0	5.0	13.0	11.5	17.0	12.5	20.0	17.0	17.0	14.5
8	6.0	5.0	9.0	5.5	14.5	11.0	17.5	13.5	21.0	17.0	16.0	13.5
9	6.0	4.5	8.0	6.0	14.0	10.0	17.0	14.5	20.0	16.0	16.0	12.5
10	7.0	4.5	7.5	6.0	14.0	10.5	17.5	13.0	20.5	16.5	16.0	13.0
11	7.5	5.0	7.5	6.0	14.0	11.0	18.5	14.0	21.0	17.0	16.0	13.0
12	8.0	4.5	8.0	5.0	15.0	10.5	16.5	15.0	21.0	17.0	16.0	13.0
13	6.5	4.5	9.0	6.5	15.0	10.5	17.5	13.0	21.0	17.5	16.0	13.0
14	7.0	4.0	8.5	7.0	15.0	11.0	18.0	13.5	21.0	17.5	16.0	14.0
15	7.5	5.0	7.5	6.0	15.0	10.5	19.0	14.5	21.5	17.5	15.0	13.0
16	6.5	5.0	7.5	5.5	15.5	11.0	18.5	15.0	21.5	18.0	14.5	13.0
17	7.0	4.0	7.0	5.5	15.5	11.5	19.0	15.0	21.5	18.0	14.0	12.5
18	6.5	3.5	8.0	6.0	15.5	12.5	17.0	15.5	21.0	18.0	14.0	12.5
19	7.5	3.5	9.5	6.0	16.5	13.0	18.5	14.5	20.5	18.0	14.0	13.0
20	7.5	4.0	9.5	6.5	14.0	12.5	19.5	15.0	20.5	17.5	14.0	12.5
21	7.5	5.5	10.5	7.5	16.5	12.5	19.5	15.0	19.5	18.0	13.5	11.5
22	8.0	5.5	8.5	7.0	17.0	13.0	19.5	15.0	20.0	17.5	13.5	11.0
23	8.0	6.0	8.0	7.0	17.0	13.0	19.0	15.5	19.0	16.5	12.0	11.0
24	9.0	6.0	9.0	6.5	17.0	13.0	19.5	15.5	17.5	16.0	11.5	10.5
25	8.0	6.0	9.5	6.5	18.0	13.5	19.0	16.0	16.0	15.0	12.0	10.0
26	9.0	5.5	9.0	7.0	17.5	13.5	20.0	16.0	15.0	14.5	12.5	9.5
27	9.5	5.5	8.0	6.0	17.5	13.5	20.0	16.0	15.5	14.0	11.5	10.5
28	8.5	6.5	9.0	6.5	18.0	13.5	19.0	16.0	16.0	14.5	11.5	10.5
29	9.5	7.0	10.5	6.0	18.0	14.0	19.0	15.0	16.0	14.5	10.5	10.0
30	9.0	6.5	10.0	7.5	18.0	14.0	19.5	15.0	16.0	14.0	11.0	10.0
31	---	---	11.0	8.0	---	---	20.5	15.5	16.0	13.0	---	---
MONTH	9.5	3.5	11.0	5.0	18.0	7.5	20.5	11.5	21.5	13.0	18.0	9.5

14161500 LOOKOUT CREEK NEAR BLUE RIVER, OR

LOCATION.--Lat 44°12'35", long 122°15'20", in T.15 or 16 S., R.5 E. (unsurveyed), Lane County, Hydrologic Unit 17090004, in Willamette National Forest, on left bank 6.0 mi (9.7 km) northeast of town of Blue River, and at mile 0.5 (0.8 km).

DRAINAGE AREA.--24.1 mi² (62.4 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1949 to September 1955, September 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,377.76 ft (419.941 m) above mean sea level (Corps of Engineers bench mark).

REMARKS.--Water-discharge records good except those for periods of no gage-height record, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--20 years, 130 ft³/s (3.682 m³/s), 73.25 in/yr (1,861 mm/yr), 94,180 acre-ft/yr (116 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,660 ft³/s (189 m³/s) Dec. 22, 1964, gage height, 8.88 ft (2.707 m), from rating curve extended above 1,300 ft³/s (36.8 m³/s), on basis of slope-area measurement of peak flow; minimum, 6.4 ft³/s (0.18 m³/s) Nov. 25-30, 1952.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 293 ft³/s (8.298 m³/s) Mar. 9, gage height, 3.68 ft (1.122 m), no peak above base of 1,000 ft³/s (28.3 m³/s): minimum, 8.6 ft³/s (0.24 m³/s) Oct. 18-22, 24, Aug. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	62	18	20	20	121	130	120	120	25	13	14
2	11	43	18	28	18	98	120	160	101	24	12	12
3	12	31	17	26	18	95	110	190	95	24	12	13
4	10	25	17	24	17	87	110	140	101	24	12	13
5	10	21	16	22	16	80	140	130	97	24	12	12
6	10	20	17	22	16	81	176	120	92	22	12	11
7	9.9	18	16	20	16	137	224	110	86	21	12	11
8	9.9	16	20	18	16	234	256	100	78	21	12	10
9	9.9	16	22	18	16	250	209	110	73	20	11	9.9
10	9.4	15	20	18	16	169	164	170	67	20	10	9.9
11	9.9	14	19	18	16	133	141	160	62	19	10	9.4
12	9.4	14	18	20	16	131	133	140	60	19	9.9	9.4
13	9.4	14	18	28	18	115	139	130	56	18	9.9	9.0
14	9.0	17	17	38	17	101	127	120	53	18	9.9	9.0
15	9.0	48	16	34	16	90	121	110	49	18	9.9	9.0
16	9.0	59	16	34	16	81	123	120	46	18	9.4	9.4
17	9.0	41	16	32	16	75	113	150	44	17	9.0	10
18	9.0	40	16	36	15	74	103	130	42	18	9.0	12
19	8.6	33	16	34	15	84	95	120	40	18	9.4	15
20	8.6	31	15	32	15	89	92	120	39	16	9.4	18
21	8.6	27	15	30	20	84	92	120	38	16	9.4	21
22	8.6	25	15	28	32	87	97	110	36	15	9.4	16
23	9.0	24	17	26	31	98	108	130	34	15	9.0	26
24	15	22	16	26	27	97	125	120	32	16	21	57
25	57	22	20	24	29	92	141	110	31	15	16	48
26	32	21	40	22	40	86	127	130	30	15	18	36
27	17	20	44	22	80	121	115	130	29	14	14	28
28	14	20	31	19	169	117	120	140	27	14	18	40
29	13	19	26	20	---	110	110	120	26	14	18	37
30	12	18	23	19	---	100	110	110	26	13	29	38
31	25	---	21	20	---	96	---	110	---	13	17	---
TOTAL	404.2	796	616	778	757	3413	3971	3980	1710	564	392.6	573.0
MEAN	13.0	26.5	19.9	25.1	27.0	110	132	128	57.0	18.2	12.7	19.1
MAX	57	62	44	38	169	250	256	190	120	25	29	57
MIN	8.6	14	15	18	15	74	92	100	26	13	9.0	9.0
CFSM	.54	1.10	.83	1.04	1.12	4.56	5.48	5.31	2.37	.76	.53	.79
IN.	.62	1.23	.95	1.20	1.17	5.27	6.13	6.14	2.64	.87	.61	.88
AC-FT	802	1580	1220	1540	1500	6770	7880	7890	3390	1120	779	1140

CAL YR 1976 TOTAL 35825.2 MEAN 97.9 MAX 1230 MIN 8.6 CFSM 4.06 IN 55.30 AC-FT 71060
WTR YR 1977 TOTAL 17954.8 MEAN 49.2 MAX 256 MIN 8.6 CFSM 2.04 IN 27.71 AC-FT 35610

NOTE.--No gage-height record Jan. 6 to Feb. 28, Apr. 28 to June 1.

14161500 LOOKOUT CREEK NEAR BLUE RIVER, OR—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.—
WATER TEMPERATURES: August 1950 to September 1955, September 1963 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURES: Maximum, 21.5°C July 28, 1968; minimum, 0.0°C Jan. 31, Feb. 1, 1969, Jan. 8, 9, 1977.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURES: Maximum, 21.0°C Aug. 15-18; minimum, 0.0°C Jan. 8, 9.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.5	10.5	9.5	8.5	3.5	3.0	3.5	2.0	3.5	2.5	---	---
2	14.0	12.5	10.0	9.0	3.5	3.0	3.5	2.5	2.5	1.5	5.0	3.5
3	12.5	11.5	9.5	8.5	4.0	3.0	3.5	3.0	2.5	1.5	5.0	3.5
4	11.5	9.0	9.0	8.0	4.5	4.0	3.5	3.0	3.0	1.5	6.0	4.5
5	11.5	9.5	9.0	7.5	4.5	3.5	3.0	1.0	3.0	2.0	6.0	4.0
6	12.0	10.0	9.0	8.0	4.5	3.0	1.0	0.5	4.0	3.0	5.5	4.0
7	12.5	10.5	9.0	7.5	4.5	4.0	1.0	0.5	3.5	2.0	5.0	4.5
8	12.5	11.0	9.0	8.5	5.0	4.5	1.0	0.0	4.0	3.0	5.5	5.0
9	12.0	10.0	8.5	7.0	5.0	4.0	0.5	0.0	4.5	3.5	5.0	4.5
10	11.5	10.0	8.0	7.0	4.0	3.0	2.0	0.5	5.5	4.0	5.5	4.5
11	12.5	10.5	8.0	7.5	3.5	3.0	3.0	2.0	5.5	4.0	6.0	4.0
12	11.5	9.5	7.5	6.0	3.0	2.5	3.5	2.5	6.0	4.5	5.0	4.0
13	11.0	9.5	7.0	5.5	3.0	3.0	3.0	1.5	6.5	4.5	5.5	4.0
14	10.5	9.0	8.0	7.0	3.5	2.5	3.0	2.5	5.0	4.0	5.5	4.0
15	10.5	8.5	9.0	8.0	3.5	3.0	3.5	2.5	5.5	4.0	5.5	4.0
16	10.0	8.0	9.5	8.5	4.0	2.5	4.0	2.5	5.5	4.0	5.5	3.5
17	9.0	7.5	9.5	8.5	4.0	3.0	4.0	3.0	6.0	4.5	5.0	4.0
18	8.5	6.5	9.5	8.0	4.5	3.5	4.0	3.0	5.0	3.5	5.0	4.0
19	8.5	6.5	8.5	7.5	3.5	2.5	4.0	2.5	5.0	3.5	5.5	4.5
20	8.5	6.5	8.0	6.5	2.5	2.0	4.0	2.5	5.0	4.0	6.0	4.5
21	8.5	6.5	8.0	6.5	2.5	1.5	4.5	3.0	5.0	4.0	7.0	4.0
22	8.0	7.0	7.5	6.5	3.0	2.0	3.5	3.0	4.5	3.5	7.0	4.5
23	9.0	7.5	7.0	6.0	4.0	3.0	3.0	2.0	4.0	3.0	6.0	5.0
24	8.0	7.5	6.5	5.5	3.5	3.0	2.5	1.5	4.5	3.0	6.0	4.5
25	8.5	8.0	7.5	6.5	4.0	3.0	2.0	1.5	---	---	6.5	4.5
26	8.5	7.5	6.0	4.0	4.5	4.0	1.5	1.0	---	---	6.0	5.0
27	8.0	6.5	4.0	3.5	4.5	4.0	1.5	1.0	---	---	5.5	4.5
28	8.0	6.0	3.5	3.0	4.0	3.0	1.5	1.0	---	---	5.0	4.0
29	8.5	8.0	4.0	2.5	4.5	3.5	1.5	0.5	---	---	6.0	4.0
30	9.0	8.0	3.5	3.0	4.0	3.0	2.0	0.5	---	---	6.5	4.0
31	9.5	8.5	---	---	3.0	2.0	3.5	2.0	---	---	5.0	4.5
MONTH	14.5	6.0	10.0	2.5	5.0	1.5	4.5	0.0	6.5	1.5	7.0	3.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.5	5.0	7.5	7.0	10.0	8.5	18.0	14.0	20.0	15.5	16.0	12.0
2	7.0	4.5	7.5	6.5	11.5	7.5	17.5	13.5	20.0	16.0	16.0	13.0
3	8.0	4.5	7.0	5.5	9.5	8.5	14.5	12.5	20.5	15.5	16.0	14.5
4	8.0	5.0	---	5.5	11.5	8.5	14.5	12.0	20.0	15.5	17.0	15.0
5	8.5	5.0	6.5	5.5	14.5	8.5	14.5	11.0	20.0	15.5	18.0	15.5
6	8.0	5.0	7.5	5.5	15.0	10.5	16.5	11.0	20.5	15.5	17.5	15.0
7	8.0	5.0	7.0	5.0	13.0	11.5	18.0	11.5	19.5	16.0	17.0	13.5
8	6.5	5.5	9.5	---	15.0	10.5	18.0	12.5	20.0	16.0	16.0	13.0
9	6.0	5.0	7.5	6.0	15.0	9.5	17.0	13.5	20.0	15.0	15.5	12.0
10	7.0	5.0	6.5	5.5	14.5	10.0	17.5	12.5	20.0	15.5	16.0	12.5
11	7.5	5.5	8.0	5.0	14.5	10.5	18.5	12.5	20.5	16.0	16.0	13.0
12	8.5	5.0	8.5	6.5	15.5	10.0	16.0	14.0	20.5	16.0	16.0	12.5
13	7.0	5.0	9.0	7.0	16.0	10.0	17.5	11.5	20.0	16.5	16.0	12.5
14	7.5	4.5	8.0	6.5	16.5	10.5	18.5	12.5	20.5	16.5	16.0	14.0
15	7.5	5.5	7.5	5.5	16.0	10.0	19.0	13.5	21.0	17.0	14.5	13.5
16	7.0	5.0	7.0	6.0	16.5	10.0	18.5	13.5	21.0	17.0	14.0	12.5
17	7.5	4.5	7.0	6.0	16.0	11.0	18.5	14.0	21.0	17.0	13.5	12.5
18	7.0	4.5	9.5	6.0	16.5	12.0	17.0	14.5	21.0	17.5	13.5	12.5
19	8.0	4.0	10.0	7.0	17.0	12.5	18.5	13.5	20.0	17.0	13.5	12.5
20	8.0	4.5	10.5	8.0	13.5	11.5	19.0	14.0	19.5	16.5	13.0	12.0
21	7.5	5.5	8.5	7.0	17.0	11.5	19.0	14.0	19.5	17.5	13.0	11.5
22	8.5	6.0	8.0	7.0	18.0	12.5	19.5	14.0	20.0	17.0	12.5	11.0
23	8.0	6.0	9.0	6.5	18.5	12.5	18.0	14.5	18.5	15.5	12.0	11.5
24	9.0	6.0	9.5	6.5	18.5	12.0	19.0	14.5	17.5	15.5	12.0	10.5
25	8.0	6.0	9.0	6.5	19.0	12.5	18.5	15.0	15.0	14.5	12.5	11.0
26	9.0	6.0	8.5	6.5	18.5	12.5	19.5	15.0	14.5	14.0	12.5	10.0
27	9.5	5.5	9.5	6.5	18.5	13.0	19.5	15.0	15.0	14.0	11.5	10.5
28	8.5	6.5	10.5	6.0	19.0	12.5	18.5	15.0	15.0	14.0	11.5	11.0
29	9.5	7.0	10.0	7.0	18.5	13.0	18.5	13.5	15.5	14.0	11.0	10.5
30	10.0	7.0	11.0	8.0	19.0	13.0	19.5	14.0	16.0	14.0	11.0	10.0
31	---	---	---	8.5	---	---	20.0	15.0	16.0	12.5	---	---
MONTH	10.0	4.0	11.0	5.0	19.0	7.5	20.0	11.0	21.0	12.5	18.0	10.0

14162100 BLUE RIVER LAKE NEAR BLUE RIVER, OR

LOCATION.--Lat 44°10'20", long 122°19'40", in SE¼SE¼ sec.16, T.16 S., R.4 E., Lane County, Hydrologic Unit 17090004, in intake tower near left end of Blue River Dam on Blue River, 1.4 mi (2.3 km) north of town of Blue River, and at mile 1.7 (2.7 km).

DRAINAGE AREA.--87.3 mi^2 (226.1 km^2).

PERIOD OF RECORD.--October 1968 to current year. Prior to October 1971, published as Blue River Reservoir near Blue River.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with concrete gate and spillway section, completed in 1968 by Corps of Engineers; storage began October 1968. Total capacity is 89,520 acre-ft (110 hm^3) at elevation 1,357 ft (413.6 m), maximum pool, and usable capacity is 85,550 acre-ft (105 hm^3) between elevations 1,180 ft (359.7 m), minimum flood control pool, and 1,357 ft (413.6 m), maximum pool. Reservoir used for flood control. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 85,680 acre-ft (106 hm^3) June 12, 13, 1977, elevation, 1,353.02 ft (412.400 m); minimum observed since first filling in 1968, 305 acre-ft (376,000 m^3) Dec. 7, 1973, elevation, 1,125.47 ft (343.043 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 85,680 acre-ft (106 hm^3) June 12, 13, elevation, 1,353.02 ft (412.400 m); minimum observed, 2,550 acre-ft (3.14 hm^3) Dec. 23, elevation, 1,167.60 ft (355.884 m).

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,120	136	1,160	1,870	1,250	19,260
1,130	437	1,180	3,970	1,290	36,960
1,140	764	1,200	7,030	1,340	73,710
1,150	1,210	1,220	11,040	1,354	86,620

ELEVATION, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1242.09	1202.84	1179.76	1179.95	1198.72	1229.18	1302.68	1345.01	1350.98	1350.31	1305.40	1243.19
2	1241.25	1201.62	1179.70	1179.10	1198.88	1232.74	1304.38	1346.16	1350.98	1349.04	1303.64	1242.24
3	1240.11	1199.46	1179.58	1179.22	1198.96	1236.22	1305.78	1347.20	1351.22	1347.74	1301.78	1241.36
4	1238.66	1196.83	1179.42	1179.94	1199.02	1238.58	1307.52	1347.84	1351.55	1346.48	1299.95	1240.41
5	1237.43	1194.38	1179.26	1180.28	1199.06	1240.58	1309.86	1348.10	1351.64	1345.19	1298.11	1239.42
6	1236.17	1192.60	1179.14	1180.12	1199.10	1242.75	1312.74	1348.22	1351.79	1343.83	1296.23	1238.35
7	1234.83	1190.64	1178.88	1179.78	1199.10	1247.25	1315.95	1348.46	1352.03	1342.49	1294.38	1237.36
8	1233.34	1288.49	1179.04	1179.31	1199.10	1255.00	1319.05	1348.80	1352.25	1341.17	1292.42	1236.53
9	1231.78	1186.56	1179.74	1178.66	1199.10	1261.60	1321.25	1349.21	1352.46	1339.82	1290.40	1235.65
10	1230.18	1184.92	1180.01	1178.12	1199.10	1265.28	1322.85	1349.70	1352.70	1338.48	1288.35	1234.72
11	1228.50	1183.42	1180.16	1177.55	1199.09	1267.80	1324.25	1349.85	1352.94	1337.15	1286.17	1233.74
12	1227.52	1182.22	1180.31	1177.90	1199.10	1270.70	1325.60	1349.92	1353.02	1335.77	1283.88	1232.74
13	1227.01	1181.50	1180.40	1181.15	1199.16	1272.89	1327.08	1349.92	1353.02	1334.41	1281.58	1231.70
14	1225.40	1180.92	1177.80	1184.02	1199.20	1274.58	1328.32	1319.92	1353.00	1332.98	1279.23	1230.64
15	1223.68	1182.96	1175.10	1186.02	1199.55	1275.96	1329.48	1349.88	1353.00	1331.61	1276.83	1229.60
16	1221.98	1282.86	1173.70	1187.85	1200.12	1277.22	1330.72	1349.85	1353.00	1330.21	1274.25	1228.59
17	1220.28	1180.24	1172.30	1189.45	1200.62	1278.34	1331.74	1350.45	1352.98	1328.76	1273.66	1227.59
18	1218.50	1179.64	1170.80	1191.04	1201.10	1279.52	1332.64	1350.54	1352.95	1327.35	1269.05	1226.64
19	1216.70	1179.82	1169.40	1192.38	1201.54	1281.12	1333.40	1350.56	1352.98	1325.94	1266.34	1225.79
20	1214.98	1180.11	1168.70	1193.48	1202.02	1282.74	1334.18	1350.72	1352.99	1324.44	1263.52	1225.17
21	1213.30	1180.10	1168.20	1194.42	1202.76	1284.08	1334.92	1350.80	1352.99	1322.99	1260.69	1224.57
22	1211.60	1180.05	1167.70	1195.20	1204.35	1285.62	1335.75	1350.80	1352.98	1321.53	1257.65	1223.84
23	1209.78	1180.15	1168.80	1195.82	1205.72	1287.67	1336.78	1350.78	1352.98	1320.05	1254.56	1223.49
24	1208.26	1280.00	1170.40	1196.33	1206.82	1289.30	1337.85	1350.68	1353.00	1318.60	1251.66	1225.18
25	1209.44	1179.84	1172.00	1176.80	1208.10	1290.77	1339.18	1350.48	1353.00	1317.11	1248.97	1236.16
26	1208.95	1179.74	1173.60	1197.24	1209.86	1291.96	1340.26	1350.56	1353.00	1315.50	1247.71	1236.39
27	1207.66	1179.78	1177.52	1197.64	1214.20	1294.54	1341.18	1350.90	1353.00	1313.79	1246.83	1226.11
28	1206.24	1179.80	1180.06	1197.90	1224.00	1296.58	1342.06	1351.07	1352.84	1312.21	1246.06	1226.15
29	1204.66	1179.84	1180.88	1198.10	---	1298.16	1342.96	1351.10	1352.35	1310.55	1245.34	1226.15
30	1203.12	1179.80	1180.56	1198.26	---	1299.48	1343.95	1351.00	1351.47	1308.89	1244.98	1226.21
31	1202.10	---	1180.16	1198.50	---	1300.76	---	1350.91	---	1307.17	1244.08	---
MEAN	1221.79	1195.04	1176.23	1187.15	1202.41	1271.90	1327.15	1348.69	1352.50	1329.73	1273.35	1231.86
MAX	1242.09	1288.49	1180.88	1198.50	1224.00	1300.76	1343.95	1351.10	1353.02	1350.31	1305.40	1243.19
MIN	1202.10	1179.64	1167.70	1176.80	1198.72	1229.18	1302.68	1319.92	1350.98	1307.17	1244.08	1223.49
(†)	7,400	3,940	3,990	6,770	11,970	43,600	77,240	83,680	84,210	47,900	17,380	12,510
(‡)	-9,720	-3,460	+50	+2,780	+5,200	+31,630	+33,640	+6,440	+530	-36,310	-30,520	-4,870

CAL YR 1976 MEAN 1275.42 MAX 1352.04 MIN 1167.70 AC-FT‡ -10
WTR YR 1977 MEAN 1260.10 MAX 1353.02 MIN 1167.70 AC-FT‡ -4,610

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14162200 BLUE RIVER AT BLUE RIVER, OR

LOCATION.--Lat 44°09'45", long 122°19'55", in NW¼SE¼ sec.21, T.16 S., R.4 E., Lane County, Hydrologic Unit 17090004, on right bank 0.3 mi (0.5 km) upstream from Simmonds Creek, 0.7 mi (1.1 km) north of town of Blue River, 0.8 mi (1.3 km) downstream from Blue River Dam, and at mile 0.9 (1.4 km).

DRAINAGE AREA.--87.7 mi² (227.1 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,056.53 ft (322.030 m) above mean sea level (Corps of Engineers bench mark). Prior to Aug. 25, 1966, nonrecording gage at datum 0.80 ft (0.244 m) higher.

REMARKS.--Water-discharge records good. Flow regulated since October 1968 by Blue River Lake (see station 14162100). No diversion above station. Discharge not adjusted for storage or release from Blue River Lake as losses from reservoir at times exceed natural flow.

AVERAGE DISCHARGE.--11 years, 479 ft³/s (13.57 m³/s), 347,000 acre-ft/yr (428 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,270 ft³/s (206 m³/s) Feb. 23, 1968, gage height, 8.93 ft (2.722 m); minimum, 0.80 ft³/s (0.023 m³/s) Oct. 8, 10, 11, 1968; minimum daily, 3.7 ft³/s (0.10 m³/s) Oct. 8, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 590 ft³/s (16.7 m³/s) May 10, 11, gage height, 4.49 ft (1.369 m); minimum, 8.5 ft³/s (0.24 m³/s) Feb. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	207	210	52	78	52	15	14	14	360	533	570	200
2	205	259	50	86	50	13	13	106	328	570	567	200
3	205	256	49	114	50	16	12	307	220	570	567	197
4	205	256	49	119	50	13	12	474	215	567	563	197
5	207	230	49	91	50	11	12	525	307	567	563	202
6	205	168	49	71	49	13	11	451	248	567	563	205
7	205	166	48	85	49	15	11	350	180	567	559	180
8	213	164	49	85	48	16	11	264	149	563	555	157
9	218	149	50	85	48	17	11	238	130	563	555	157
10	215	126	50	85	47	12	11	422	91	563	563	155
11	215	111	50	85	46	11	12	536	78	559	578	155
12	130	94	50	85	46	13	12	470	137	559	586	153
13	81	69	49	60	46	12	12	422	166	559	582	153
14	195	68	139	55	46	11	12	390	155	559	578	153
15	192	98	187	55	27	10	12	418	132	555	578	151
16	192	213	106	55	12	10	12	433	132	555	578	151
17	190	251	65	55	13	10	12	451	130	555	578	149
18	185	155	63	55	15	10	12	536	116	551	574	149
19	185	106	63	55	15	11	12	463	91	551	578	149
20	173	95	61	55	15	11	12	357	100	551	578	147
21	161	84	55	55	16	11	12	376	112	548	574	147
22	161	78	53	55	17	10	12	404	98	548	582	147
23	157	76	44	55	17	10	12	459	78	544	582	147
24	157	63	38	55	17	10	12	459	78	544	578	149
25	159	72	38	55	17	10	12	415	78	555	511	151
26	157	67	40	55	18	10	12	387	78	567	295	153
27	155	54	43	55	19	12	12	394	78	567	205	157
28	151	53	46	53	18	13	12	448	170	563	205	159
29	153	53	78	53	---	13	12	448	286	559	205	157
30	153	53	100	53	---	12	14	451	411	555	205	157
31	151	---	94	52	---	12	---	400	---	559	202	---
TOTAL	5538	3897	1957	2110	913	373	360	12268	4932	17293	15557	4884
MEAN	179	130	63.1	68.1	32.6	12.0	12.0	396	164	558	502	163
MAX	218	259	187	119	52	17	14	536	411	570	586	205
MIN	81	53	38	52	12	10	11	14	78	533	202	147
AC-FT	10980	7730	3880	4190	1810	740	714	24330	9780	34300	30860	9690

CAL YR 1976 TOTAL 127129 MEAN 347 MAX 2920 MIN 38 AC-FT 252200
WTR YR 1977 TOTAL 70082 MEAN 192 MAX 586 MIN 10 AC-FT 139000

14162200 BLUE RIVER AT BLUE RIVER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1966 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26.0°C July 6, 1968; minimum, 0.0°C Jan. 5-9, 1974.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.5°C Aug. 25, 26; minimum, 2.5°C Dec. 24, Jan. 6-14, 26-28.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.0	19.0	13.0	12.0	7.0	6.0	4.0	3.5	4.5	3.0	---	---
2	19.0	18.5	12.0	12.0	6.5	5.5	4.0	3.5	4.5	3.0	---	---
3	19.0	18.5	12.0	12.0	6.0	5.5	4.0	3.5	4.0	3.0	7.0	---
4	19.0	18.5	12.5	12.0	6.0	5.5	4.0	3.5	4.0	3.0	7.5	5.0
5	18.5	18.0	12.5	12.0	6.0	5.0	4.0	3.0	3.5	3.0	8.0	4.5
6	18.0	18.0	12.5	12.0	6.0	5.0	3.0	2.5	---	---	6.5	5.0
7	18.0	17.5	12.5	12.0	6.0	5.0	3.5	2.5	---	---	6.5	5.5
8	18.0	17.5	12.0	12.0	5.5	5.0	3.0	2.5	---	---	6.5	5.0
9	18.0	17.5	12.0	12.0	6.0	4.5	3.0	2.5	---	---	6.5	5.5
10	18.0	17.5	12.0	11.5	5.5	5.0	3.0	2.5	---	---	8.0	5.5
11	18.0	17.5	12.0	11.5	5.5	5.0	3.0	2.5	---	---	8.0	5.5
12	18.5	17.0	12.0	11.0	5.5	4.5	3.5	2.5	---	---	7.0	5.0
13	18.0	17.0	11.5	10.5	5.0	4.5	3.5	2.5	---	---	7.5	5.0
14	17.5	17.5	11.0	10.5	4.5	4.0	4.0	2.5	---	---	7.0	5.5
15	17.5	17.0	10.5	10.5	4.5	4.0	4.0	3.0	---	---	8.0	5.0
16	17.5	17.0	10.5	10.0	4.5	4.5	3.5	3.0	---	---	8.0	4.5
17	17.0	17.0	10.5	10.5	5.0	4.5	4.0	3.0	---	---	6.5	4.5
18	17.0	16.5	10.5	10.5	5.0	4.0	4.0	3.0	---	---	6.5	5.0
19	16.5	16.0	10.5	10.0	4.5	4.0	4.5	3.0	---	---	6.5	5.0
20	16.0	15.5	10.5	10.0	4.5	3.5	4.5	3.0	---	---	7.5	5.0
21	16.0	15.5	10.0	9.5	4.5	4.0	4.5	3.5	---	---	8.5	5.0
22	16.0	15.5	9.5	9.0	4.0	3.5	4.5	3.5	---	---	8.5	5.0
23	15.5	15.0	9.5	9.0	6.5	3.5	4.5	3.0	---	---	7.0	5.0
24	15.5	15.0	9.5	8.5	5.0	2.5	4.5	3.0	---	---	9.0	5.0
25	15.0	13.0	8.5	8.5	4.0	3.0	5.5	3.0	---	---	7.0	5.5
26	13.0	12.0	9.0	8.0	4.0	3.5	5.0	2.5	---	---	6.5	5.0
27	12.5	12.0	8.5	7.0	5.5	3.5	5.0	2.5	---	---	7.0	5.0
28	12.5	12.5	8.0	7.0	4.5	3.0	4.0	2.5	---	---	7.0	4.5
29	12.5	12.5	7.5	6.5	4.0	3.5	4.5	3.0	---	---	8.0	5.0
30	13.0	12.5	7.0	6.0	4.5	3.5	4.0	3.0	---	---	9.0	5.0
31	13.0	13.0	---	---	4.0	3.5	4.0	3.0	---	---	6.5	5.0
MONTH	19.0	12.0	13.0	6.0	7.0	2.5	5.5	2.5	4.5	3.0	9.0	4.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	5.5	7.5	5.5	7.0	5.5	8.0	6.5	10.0	9.0	20.0	19.0
2	8.0	5.0	8.0	5.5	7.5	5.5	7.5	6.5	10.5	9.5	20.0	19.0
3	9.0	5.5	6.5	5.0	7.0	6.0	8.0	6.5	10.5	9.5	20.0	19.0
4	9.5	5.5	6.5	5.0	7.5	6.0	8.0	6.5	10.5	9.5	20.5	19.5
5	9.0	5.5	6.5	5.0	7.5	6.5	8.0	6.5	11.0	10.0	20.0	19.0
6	9.5	5.0	6.5	5.0	7.5	6.0	8.0	6.5	11.0	10.0	20.5	19.0
7	9.5	5.0	7.0	5.0	7.5	6.5	8.0	7.0	11.5	10.5	20.5	19.0
8	7.5	5.5	6.5	5.5	7.5	6.5	8.0	7.5	11.5	11.0	20.5	19.0
9	7.5	5.5	6.5	5.0	7.5	6.0	8.0	7.5	12.0	11.5	20.5	19.0
10	8.5	5.5	6.5	5.0	8.5	6.5	8.0	7.5	12.5	11.5	20.5	18.5
11	9.5	5.5	6.5	5.0	8.5	6.0	8.0	7.5	12.5	12.0	20.5	19.0
12	9.0	5.0	7.0	5.0	8.0	6.5	8.5	7.5	13.5	12.5	20.5	19.5
13	8.0	5.0	7.5	5.0	8.0	6.0	8.0	7.5	14.0	13.0	20.5	19.0
14	9.0	5.0	7.0	4.5	7.5	6.5	8.0	7.5	15.0	14.0	20.5	19.5
15	8.0	5.5	6.5	5.5	8.0	6.0	8.0	8.0	15.5	14.5	20.5	19.0
16	8.0	5.0	7.0	5.0	8.0	6.0	8.5	8.0	16.0	15.0	20.5	19.0
17	8.5	5.0	6.5	5.5	8.0	6.5	8.5	7.5	17.0	16.0	20.0	18.0
18	8.5	5.0	6.5	5.5	8.5	6.0	8.5	8.0	18.0	17.0	19.5	18.5
19	9.5	5.0	7.0	5.0	8.0	6.0	9.0	8.0	18.5	17.5	19.5	18.0
20	9.0	5.5	7.5	5.5	8.5	6.5	8.5	8.0	19.0	18.0	19.0	18.0
21	7.5	5.0	7.0	5.0	8.0	6.5	8.5	8.0	19.5	18.5	18.5	17.5
22	8.5	5.5	7.0	5.5	8.0	6.0	9.0	8.0	20.5	19.0	18.0	17.0
23	8.0	5.5	7.5	5.5	8.5	6.0	9.0	7.5	20.5	19.5	17.5	16.5
24	9.0	5.0	7.0	5.5	8.5	6.5	9.0	8.0	21.0	20.5	17.5	15.0
25	9.0	5.5	7.0	5.5	8.5	7.0	9.0	8.0	21.5	21.0	15.5	14.5
26	9.5	5.5	7.5	6.0	8.5	6.5	9.5	8.5	21.5	20.5	15.0	14.5
27	9.5	5.0	7.0	5.5	8.5	6.0	9.5	8.0	21.0	20.5	15.0	14.0
28	8.5	5.0	7.0	5.5	8.0	6.5	10.0	8.5	21.0	20.0	15.0	14.5
29	9.0	5.5	7.0	6.0	8.0	6.5	9.5	8.5	20.5	20.0	15.0	14.0
30	9.5	5.5	7.0	6.0	8.0	6.0	10.0	9.0	21.0	19.5	14.5	14.0
31	---	---	7.0	5.5	---	---	10.0	9.0	20.0	19.5	---	---
MONTH	9.5	5.0	8.0	4.5	8.5	5.5	10.0	6.5	21.5	9.0	20.5	14.0

14162500 MCKENZIE RIVER NEAR VIDA, OR

LOCATION.--Lat 44°07'30", long 122°28'10", in NE¼NE¼ sec.5, T.17 S., R.3 E., Lane County, Hydrologic Unit 17090004, on right bank 0.4 mi (0.6 km) downstream from Mason Creek, 5.4 mi (8.7 km) east of Vida, and at mile 47.7 (76.6 km).

DRAINAGE AREA.--930 mi² (2,409 km²) at cableway 0.4 mi (0.6 km) downstream, where all discharge measurements are made.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1910 to March 1911 (published as "at Martins Rapids, near Vida"), September 1924 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 855.71 ft (260.820 m) above mean sea level (levels by Eugene Water and Electric Board). July 1, 1910, to Mar. 31, 1911, nonrecording gage at site 3 mi (5 km) downstream at different datum. Sept. 1, 1924, to Nov. 16, 1928, nonrecording gage at site 20 ft (6 m) upstream at datum 0.15 ft (0.046 m) lower. Nov. 17, 1928, to Sept. 23, 1968, water-stage recorder at present site on left bank at datum 0.15 ft (0.046 m) lower.

REMARKS.--Water-discharge records good. Flow regulated since 1963 by Smith River Reservoir (see station 14158795) and Cougar Lake see station 14159400), and since 1968 by Blue River Lake (see station 14162100). No diversion above station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--53 years (water years 1925-77), 4,051 ft³/s (114.7 m³/s), 2,935,000 acre-ft/yr (3.62 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,400 ft³/s (1,820 m³/s) Dec. 28, 1945, gage height, 17.70 ft (5.395 m), site and datum then in use, from rating curve extended above 32,000 ft³/s (906 m³/s); minimum, 1,260 ft³/s (35.7 m³/s) Nov. 7, 1930, Sept. 17, Oct. 4, 8, 9, 1931.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1923 reached a stage of 17.2 ft (5.24 m), from floodmarks, discharge, 62,000 ft³/s (1,760 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,440 ft³/s (126 m³/s) May 10, 11, gage height, 2.44 ft (0.744 m); minimum, 1,320 ft³/s (37.4 m³/s) Feb. 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2790	3190	2100	1770	1580	2420	2620	2920	3390	2420	2260	2350
2	2790	3080	2010	1910	1570	2170	2540	3330	3310	2550	2350	2330
3	2830	2970	1880	1960	1550	2280	2380	3750	3130	2590	2350	2310
4	2830	2950	1900	1940	1540	2140	2450	4090	3410	2590	2330	2300
5	2810	2880	1860	1850	1520	2020	2720	3990	3690	2590	2310	2300
6	2770	2770	1850	1760	1520	2060	2950	3610	3630	2550	2300	2310
7	2760	2760	1900	1740	1510	2450	3080	3280	3510	2540	2310	2280
8	2740	2760	1960	1740	1510	3550	3330	2990	3260	2520	2310	2250
9	2760	2790	2040	1740	1520	3830	3190	2900	2950	2500	2300	2230
10	2760	2790	1960	1740	1520	3130	2880	3890	2840	2500	2300	2250
11	2740	2760	1910	1740	1520	2670	2670	4200	2690	2520	2300	2230
12	2450	2710	1900	1760	1510	2810	2590	3670	2540	2480	2380	2230
13	1820	2650	1900	1900	1520	2600	2740	3350	2590	2470	2520	2250
14	2690	2690	1940	1960	1520	2420	2650	3200	2590	2450	2520	2250
15	2720	3820	2020	1880	1450	2230	2620	3280	2520	2500	2620	2230
16	2710	3150	1960	1800	1380	2120	2670	3330	2480	2600	2710	2250
17	2720	3080	1830	1790	1360	2060	2570	3910	2400	2570	2710	2250
18	2670	2990	1760	1770	1340	2070	2450	3950	2280	2520	2720	2260
19	2670	2880	1740	1770	1330	2180	2380	3470	2300	2470	2670	2310
20	2650	2840	1710	1770	1340	2230	2400	3150	2330	2480	2710	2380
21	2670	2830	1700	1770	1410	2100	2370	3130	2260	2480	2710	2380
22	2670	2840	1780	1760	1580	2140	2330	3190	2170	2550	2710	2350
23	2670	2840	1730	1740	1570	2300	2480	3590	2120	2550	2720	2420
24	2740	2830	1710	1700	1510	2310	2600	3690	2020	2550	2880	2810
25	3130	2840	1710	1610	1480	2170	2830	3570	1990	2470	2760	2690
26	2930	2830	1830	1590	1570	2090	2920	3790	1980	2280	2550	2590
27	2760	2810	1930	1580	1710	2540	2720	3770	1940	2250	2370	2480
28	2740	2810	1830	1570	2740	2590	2670	3790	1990	2200	2370	2670
29	2720	2740	1960	1570	---	2500	2670	3670	2100	2200	2450	2670
30	2710	2430	1820	1570	---	2330	2670	3570	2230	2220	2520	2760
31	2770	---	1760	1570	---	2310	---	3410	---	2200	2480	---
TOTAL	84190	85510	57810	54320	43180	74820	80140	109430	78640	76360	77420	71370
MEAN	2716	2850	1865	1752	1542	2414	2671	3530	2621	2463	2497	2379
MAX	3130	3190	2100	1960	2740	3830	3330	4200	3690	2600	2880	2810
MIN	1820	2430	1700	1570	1330	2020	2330	2900	1940	2200	2260	2230
AC-FT	167000	169600	114700	107700	85650	148400	159000	217100	156000	151500	153600	141600

CAL YR 1976 TOTAL 1420120 MEAN 3880 MAX 15700 MIN 1700 AC-FT 2817000
WTR YR 1977 TOTAL 893190 MEAN 2447 MAX 4200 MIN 1330 AC-FT 1772000

14162500 MCKENZIE RIVER NEAR VIDA, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1976 to current year.
WATER TEMPERATURES: June 1961 to current year.

INSTRUMENTATION.--Graphic temperature recorder since June 1961. Dual conductivity-temperature recorder since November 1976.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 67 micromhos Jan. 9, 1977; minimum recorded, 39 micromhos May 26-28, June 5-7, 1977.
WATER TEMPERATURES: Maximum, 16.0°C July 6, 7, 28, 1968; minimum, 1.0°C Feb. 5, 6, 1976.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 67 micromhos Jan. 9; minimum recorded, 39 micromhos May 26-28, June 5-7.
WATER TEMPERATURES: Maximum, 15.5°C June 24-27, Aug. 17, 22; minimum, 2.5°C Jan. 3, 6.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
AUG									
11...	1415	2300	20	4.3	1.6	3.7	27	1.3	1.5

DATE	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
AUG									
11...	.0	.00	.65	.65	.03	17	0	.4	45

DATE	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (JTU)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	ALKALINITY AS CACO3 (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
AUG								
11...	47	279	.06	2	3	19	22	.6

DATE	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)
AUG											
11...	130	20	8	0	0	0	<10	1	0	0	<50

DATE	DISSOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)
AUG											
11...	0	10	4	<100	1	40	20	0	0	.1	.0

14162500 MCKENZIE RIVER NEAR VIDA, OR--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	57	64	58	54	52	47	41	51	52	49
2		---	58	63	58	56	53	45	42	50	51	49
3		---	58	64	58	54	54	44	42	50	51	49
4		---	58	65	58	56	54	43	42	50	51	49
5		54	58	64	58	56	52	44	41	51	52	48
6		55	58	65	58	56	52	45	40	51	51	49
7		55	58	65	58	53	49	46	40	51	51	49
8		55	57	64	58	49	47	46	42	52	51	49
9		55	59	64	59	48	48	47	43	51	51	49
10		56	63	63	58	51	50	43	45	52	51	49
11		55	63	63	59	53	51	42	45	52	51	49
12		55	63	63	58	52	51	44	46	52	50	49
13		55	63	64	58	53	51	44	46	52	50	49
14		55	63	64	58	54	51	45	47	51	50	50
15		54	63	64	59	55	51	44	47	51	49	50
16		54	63	64	59	56	51	44	48	51	50	50
17		54	63	64	59	56	51	42	48	51	49	49
18		54	64	64	60	56	51	42	48	51	49	50
19		54	64	64	60	55	52	44	49	51	49	50
20		54	65	65	60	56	52	44	50	51	49	50
21		54	64	65	59	56	52	44	50	51	49	50
22		55	64	---	58	55	51	---	51	50	49	51
23		53	64	---	59	54	51	---	51	50	49	50
24		54	65	58	59	54	50	---	52	50	47	50
25		54	64	58	59	55	48	---	53	51	48	49
26		54	63	58	58	56	47	40	53	52	49	50
27		55	63	58	58	53	48	40	54	52	50	51
28		54	64	58	52	52	48	40	53	52	49	51
29		55	63	58	---	54	48	41	53	52	48	51
30		56	63	58	---	54	48	41	52	52	48	51
31		---	64	58	---	54	---	42	---	52	49	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.0	11.0	10.0	10.0	6.5	5.5	5.5	4.0	6.0	5.0	5.5	4.5
2	12.0	11.0	10.0	10.0	6.5	5.5	5.5	3.5	5.5	3.5	5.5	4.5
3	11.5	11.0	10.0	10.0	6.5	5.5	3.5	2.5	5.0	3.5	6.0	4.5
4	11.5	11.0	10.0	9.5	7.0	6.0	4.0	3.0	5.5	4.0	7.0	5.0
5	12.0	10.5	9.5	9.5	6.5	6.0	3.5	3.0	5.5	4.0	7.0	4.0
6	12.0	11.0	10.0	9.0	6.5	5.5	3.5	2.5	6.0	4.5	6.5	5.0
7	13.0	11.5	10.0	8.5	6.5	6.0	5.0	3.0	6.0	4.0	6.5	5.5
8	13.0	11.5	10.0	9.0	7.0	6.0	5.5	4.5	6.0	5.0	6.0	5.5
9	13.0	11.0	9.5	8.5	6.5	6.0	5.5	5.0	6.5	5.0	6.0	4.5
10	12.0	11.0	9.5	8.5	6.0	5.0	5.5	5.0	7.0	5.5	6.5	4.5
11	13.0	11.5	10.0	9.0	5.5	5.0	5.0	4.5	6.5	5.5	7.0	4.5
12	12.0	11.0	9.5	8.0	5.5	5.0	5.5	4.5	7.0	5.5	6.5	5.0
13	11.0	9.5	9.0	8.0	5.5	5.0	5.5	4.5	7.5	5.5	6.5	4.5
14	11.5	10.5	9.5	8.5	5.5	4.5	5.5	4.5	6.5	5.0	6.5	4.5
15	11.5	10.5	9.5	9.0	6.0	5.0	5.5	4.5	6.5	5.0	7.0	4.5
16	11.5	10.5	10.5	9.5	6.0	5.0	5.5	4.5	6.5	5.0	7.0	4.5
17	11.5	10.5	10.0	9.0	6.0	5.0	5.5	4.5	7.0	5.5	6.5	5.0
18	11.0	10.0	10.0	9.5	6.0	5.0	6.0	5.0	6.5	5.0	6.5	5.5
19	11.0	10.0	9.5	8.5	5.0	4.0	6.0	4.5	7.0	4.5	7.0	6.0
20	11.0	10.0	9.0	8.0	4.5	4.0	5.0	3.5	6.5	5.5	7.5	5.5
21	11.0	10.0	9.0	8.5	5.0	4.0	4.5	4.0	6.5	5.5	8.0	5.0
22	11.0	10.5	9.0	8.5	5.0	4.0	4.5	4.0	6.0	4.5	8.5	5.0
23	11.0	10.5	9.0	8.0	6.0	5.0	---	---	5.5	5.0	7.5	6.0
24	11.0	10.5	8.5	8.0	5.5	5.0	5.0	4.5	5.0	5.0	8.0	6.0
25	10.0	10.0	9.0	8.5	6.0	5.0	5.0	3.5	5.0	5.0	8.0	6.0
26	10.0	10.0	8.0	6.5	6.0	5.5	4.5	3.5	6.0	4.5	7.5	6.0
27	10.0	10.0	7.0	6.0	6.0	5.5	4.0	3.0	6.5	5.5	7.0	5.5
28	10.0	9.5	7.5	6.0	5.5	4.5	4.5	3.0	6.5	5.0	6.5	4.5
29	10.0	10.0	7.5	6.5	6.0	5.0	4.5	3.0	---	---	7.5	5.0
30	10.5	10.0	7.0	6.5	5.0	3.0	4.5	3.5	---	---	8.5	5.5
31	10.5	10.0	---	---	4.5	4.0	5.5	4.5	---	---	7.0	5.5
MONTH	13.0	9.5	10.5	6.0	7.0	3.0	6.0	2.5	7.5	3.5	8.5	4.0

14162500 MCKENZIE RIVER NEAR VIDA, OR--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	6.0	9.0	8.0	10.5	8.5	13.0	10.0	14.5	10.5	13.5	9.5
2	8.5	6.0	10.0	8.0	11.5	7.5	13.5	9.5	14.5	10.5	12.5	10.0
3	9.5	6.0	8.5	7.5	10.0	8.5	11.0	9.0	14.5	10.5	13.0	10.5
4	10.0	6.0	8.0	6.5	11.0	8.5	11.5	9.0	14.5	10.5	13.5	11.0
5	10.0	6.0	8.5	6.5	13.5	8.5	11.5	8.5	14.5	10.0	13.0	11.0
6	10.0	6.5	9.5	6.5	13.5	9.0	13.5	8.5	15.0	10.5	14.0	11.0
7	10.0	6.5	8.5	6.5	11.5	9.5	13.5	9.0	14.0	10.5	13.5	10.5
8	8.5	7.0	11.0	6.5	13.0	9.0	13.5	9.5	15.0	10.5	13.5	10.0
9	8.0	6.5	9.0	7.0	13.0	8.5	12.0	9.5	14.5	10.5	13.0	9.5
10	9.0	6.0	8.0	7.5	13.0	9.0	13.5	9.0	14.5	10.5	13.5	10.0
11	10.0	7.0	9.0	7.0	12.5	9.0	14.0	9.5	14.5	11.0	13.5	10.0
12	10.0	6.5	10.5	6.5	13.5	9.0	12.0	10.0	15.0	11.0	13.5	10.0
13	9.0	7.0	10.0	7.5	13.5	9.0	13.5	9.0	14.5	11.0	13.5	10.0
14	9.5	6.0	9.5	8.0	14.0	9.0	14.0	9.5	14.5	11.0	12.5	10.5
15	9.0	7.0	8.5	7.0	13.5	9.0	14.5	9.5	15.0	11.5	12.0	10.5
16	8.5	7.0	9.0	6.5	14.0	9.0	14.0	9.5	15.0	11.0	12.0	10.5
17	9.5	6.0	8.5	7.0	13.5	9.5	13.5	9.5	15.5	11.5	12.0	10.5
18	9.0	5.5	9.5	7.5	14.0	10.0	12.0	10.0	15.0	11.5	11.5	10.5
19	9.5	5.5	11.5	7.0	14.0	10.5	13.5	9.5	14.5	11.5	12.0	10.5
20	9.5	6.0	11.0	7.5	12.0	9.5	14.0	9.5	15.0	11.5	12.0	10.5
21	9.5	7.0	11.5	8.5	14.5	9.5	14.0	9.5	14.0	12.5	12.0	10.5
22	9.5	7.0	10.5	8.5	15.0	10.5	14.0	9.5	15.5	12.0	12.5	10.0
23	9.5	7.5	9.0	8.5	15.0	10.0	13.0	10.0	14.5	11.5	11.0	10.5
24	10.5	7.5	10.0	8.5	15.5	10.0	13.0	9.5	13.5	12.5	12.0	10.5
25	9.5	8.0	9.5	8.5	15.5	10.5	13.5	10.0	12.5	11.5	12.0	10.5
26	11.0	7.0	10.0	8.0	15.5	10.0	14.5	10.5	12.0	11.0	12.5	10.0
27	11.0	7.0	9.0	7.5	15.5	10.0	14.5	10.0	12.0	10.5	11.5	10.5
28	10.0	7.5	11.0	7.0	15.0	10.0	14.0	10.5	12.0	10.5	11.5	11.0
29	11.0	8.0	11.0	7.0	15.0	10.0	14.0	10.0	12.5	10.5	11.0	10.5
30	10.5	8.0	10.0	7.5	14.5	10.0	14.5	10.0	14.0	11.0	12.0	10.5
31	---	---	11.0	8.0	---	---	15.0	10.5	13.0	10.0	---	---
MONTH	11.0	5.5	11.5	6.5	15.5	7.5	15.0	8.5	15.5	10.0	14.0	9.5

14163000 GATE CREEK AT VIDA, OR

LOCATION.--Lat 44°08'45", long 122°34'15", in SW¼ sec.28, T.16 S., R.2 E., Lane County, Hydrologic Unit 17090004, on right bank 300 ft (91 m) downstream from bridge on State Highway 126, at Vida, and at mile 0.2 (0.3 km).

DRAINAGE AREA.--47.6 mi^2 (123.3 km^2).

PERIOD OF RECORD.--June 1951 to September 1957; annual maximums, water years 1958-65; August 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 764.56 ft (233.038 m) above mean sea level. June 11, 1951, to Sept. 30, 1957, water-stage recorder, and Oct. 1, 1957, to Aug. 1, 1966, crest-stage gage at same site and datum.

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--17 years (water years 1952-57, 1967-77), 221 ft^3/s (6.259 m^3/s), 63.05 in/yr (1,601 mm/yr), 160,100 acre-ft/yr (197 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,140 ft^3/s (202 m^3/s) Dec. 22, 1964, gage height, 12.18 ft (3.712 m), from slope-area measurement of peak flow; minimum, 12 ft^3/s (0.34 m^3/s) Nov. 26, 27, 1952.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 722 ft^3/s (20.4 m^3/s) May 17, gage height, 4.34 ft (1.323 m), no peak above base of 1,800 ft^3/s (51.0 m^3/s); minimum, 15 ft^3/s (0.42 m^3/s) Oct. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	114	27	35	38	324	312	104	176	55	26	30
2	21	72	26	67	34	243	300	152	156	53	25	26
3	25	50	25	66	34	312	248	324	150	52	24	28
4	20	42	25	58	32	245	199	410	159	52	23	28
5	20	37	23	55	32	208	250	365	146	51	22	25
6	19	34	23	48	31	218	240	272	135	49	22	23
7	18	31	23	44	31	365	237	218	127	47	23	21
8	18	30	35	43	30	492	261	186	118	46	23	20
9	18	29	49	55	30	526	225	171	114	45	22	20
10	18	28	34	41	30	365	197	312	109	45	21	19
11	18	27	35	38	30	294	178	324	102	43	20	19
12	18	26	33	42	29	336	165	240	99	43	20	18
13	18	25	31	130	30	280	167	197	95	43	19	18
14	17	32	30	122	29	223	154	178	92	41	20	18
15	16	86	29	85	28	190	144	213	86	39	20	18
16	16	95	28	71	27	169	139	294	84	38	18	18
17	16	66	28	63	27	157	127	611	81	37	18	19
18	16	68	29	57	26	178	118	492	78	38	17	23
19	15	56	26	53	25	272	114	339	77	38	18	32
20	16	49	25	50	28	266	109	269	76	36	18	44
21	16	43	24	47	34	211	104	232	76	34	19	43
22	16	40	24	44	71	213	99	206	71	34	20	34
23	16	37	30	43	71	232	96	228	68	33	18	52
24	31	35	28	41	64	220	93	218	66	34	48	112
25	114	35	31	39	65	202	95	190	64	34	34	80
26	63	33	57	38	102	180	92	206	62	33	41	60
27	38	30	68	36	169	286	85	223	59	31	31	46
28	30	30	53	35	496	274	82	245	58	30	36	70
29	30	29	45	34	---	255	80	215	56	30	45	63
30	28	28	41	34	---	237	85	188	56	29	56	66
31	45	---	36	37	---	223	---	169	---	28	38	---
TOTAL	788	1337	1021	1651	1673	8196	4795	7991	2896	1241	805	1093
MEAN	25.4	44.6	32.9	53.3	59.8	264	160	258	96.5	40.0	26.0	36.4
MAX	114	114	68	130	496	526	312	611	176	55	56	112
MIN	15	25	23	34	25	157	80	104	56	28	17	18
CFSM	.53	.94	.69	1.12	1.26	5.55	3.36	5.42	2.03	.84	.55	.77
IN.	.62	1.04	.80	1.29	1.31	6.41	3.75	6.24	2.26	.97	.63	.85
AC-FT	1560	2650	2030	3270	3320	16260	9510	15850	5740	2460	1600	2170

CAL YR 1976 TOTAL 60306 MEAN 165 MAX 2850 MIN 15 CFSM 3.47 IN 47.13 AC-FT 119600
WTR YR 1977 TOTAL 33487 MEAN 91.7 MAX 611 MIN 15 CFSM 1.93 IN 26.17 AC-FT 66420

14165000 MOHAWK RIVER NEAR SPRINGFIELD, OR

LOCATION.--Lat 44°05'34", long 122°57'20", in SE¼NW¼ sec.17, T.17 S., R.2 W., Lane County, Hydrologic Unit 17090004, on left bank 50 ft (15 m) downstream from bridge, 1.3 mi (2.1 km) northeast of Springfield, and at mile 1.59 (2.56 km).

DRAINAGE AREA.--177 mi² (458 km²).

PERIOD OF RECORD.--September 1935 to September 1952, October 1963 to current year. Prior to October 1935 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1248: 1939. WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 442.47 ft (134.865 m) above mean sea level. Oct. 1, 1935, to Sept. 30, 1952, nonrecording gage at same site and datum.

REMARKS.--Records good. Slight regulation at low flows by log ponds upstream. Many diversions for irrigation above station.

AVERAGE DISCHARGE.--31 years, 538 ft³/s (15.24 m³/s), 41.28 in/yr (1,049 mm/yr), 389,800 acre-ft/yr (481 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft³/s (368 m³/s) Dec. 22, 1964, gage height, 22.60 ft (6.888 m); minimum, 8.2 ft³/s (0.23 m³/s) Sept. 9, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached a stage of 22.9 ft (6.98 m), from floodmark, probably affected by backwater from McKenzie River, discharge, 9,200 ft³/s (261 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,300 ft³/s (36.8 m³/s) Mar. 9, gage height, 5.67 ft (1.728 m), no peak above base of 3,500 ft³/s (99.1 m³/s); minimum, 15 ft³/s (0.42 m³/s) Aug. 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	96	40	59	75	894	422	161	356	92	31	35
2	28	92	39	80	66	666	390	211	314	90	28	31
3	35	62	39	115	62	822	356	337	299	86	27	34
4	39	50	39	90	59	631	332	397	377	90	27	40
5	33	45	38	84	57	484	314	451	353	88	27	35
6	31	42	38	77	57	405	297	474	309	84	27	34
7	28	40	38	68	56	658	282	407	282	77	26	31
8	27	38	41	63	54	878	380	358	262	71	26	29
9	25	36	105	78	54	1200	380	309	248	70	25	27
10	27	36	80	68	53	1110	332	370	236	75	24	27
11	29	35	57	63	52	849	306	407	223	70	21	27
12	29	35	52	63	52	1030	284	360	218	63	20	26
13	27	34	48	121	52	926	292	319	208	66	18	24
14	27	45	45	218	54	746	273	292	197	62	17	23
15	24	84	43	152	53	618	260	319	186	57	20	24
16	24	128	42	124	52	519	253	474	177	54	20	26
17	23	88	42	107	49	454	236	647	168	53	18	27
18	23	98	41	96	48	446	223	713	161	52	16	28
19	23	86	41	90	48	459	214	592	157	54	16	39
20	21	68	39	84	47	434	208	497	157	50	16	62
21	24	60	38	78	66	392	202	436	161	47	19	60
22	23	54	36	73	216	363	194	392	147	45	23	43
23	24	50	40	68	227	385	189	392	138	42	24	42
24	28	48	44	66	232	454	179	382	128	41	86	128
25	112	48	43	63	241	417	179	329	119	41	63	80
26	96	47	82	62	282	377	194	405	117	42	52	66
27	52	43	105	59	314	419	173	429	110	42	48	50
28	41	41	86	59	853	454	164	490	103	40	40	70
29	38	41	75	57	---	490	159	436	96	39	43	73
30	41	41	71	56	---	469	157	390	96	36	44	60
31	44	---	63	62	---	434	---	353	---	32	41	---
TOTAL	1074	1711	1630	2603	3531	18883	7624	12529	6103	1851	933	1301
MEAN	34.6	57.0	52.6	84.0	126	609	261	404	203	59.7	30.1	43.4
MAX	112	128	105	218	853	1200	422	713	377	92	86	128
MIN	21	34	36	56	47	363	157	161	96	32	16	23
CFSM	.20	.32	.30	.48	.71	3.44	1.48	2.28	1.15	.34	.17	.25
IN.	.23	.36	.34	.55	.74	3.97	1.64	2.63	1.28	.39	.20	.27
AC-FT	2130	3390	3230	5160	7000	37450	15520	24850	12110	3670	1850	2580

CAL YR 1976 TOTAL 142796 MEAN 390 MAX 7500 MIN 21 CFSM 2.20 IN 30.01 AC-FT 283200
WTR YR 1977 TOTAL 59973 MEAN 164 MAX 1200 MIN 16 CFSM .93 IN 12.60 AC-FT 119000

14166000 WILLAMETTE RIVER AT HARRISBURG, OR

LOCATION.--Lat 44°16'14", long 123°10'21", in NW¼NE¼ sec.16, T.15 S., R.4 W., Linn County, Hydrologic Unit 17090003, on right bank 75 ft (23 m) north of intersection of First Street and Kesling Street in Harrisburg and at mile 161.0 (259.0 km).

DRAINAGE AREA.--3,420 mi^2 (8,860 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1944 to current year. Gage-height records collected at same site in 1927-28, 1931, 1934, are contained in reports of National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 288.39 ft (87.901 m) above mean sea level. Oct. 1 to Nov. 14, 1944, nonrecording gage at bridge 1,110 ft (338 m) upstream at different datum. Nov. 15, 1944, to Aug. 15, 1973, at site 1,100 ft (335 m) upstream at datum 2.00 ft (0.610 m) higher.

REMARKS.--Water-discharge records good. Flow regulated by 8 reservoirs above station (see elsewhere in this report). Many small diversions above station for irrigation.

AVERAGE DISCHARGE.--33 years, 12,420 ft^3/s (351.7 m^3/s), 8,998,000 acre-ft/yr (11.1 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 210,000 ft^3/s (5,950 m^3/s) Dec. 29, 1945, gage height, 19.69 ft (6.002 m), from rating curve extended above 115,000 ft^3/s (3,260 m^3/s); minimum, 1,990 ft^3/s (56.4 m^3/s) Oct. 30, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood stage of 20.5 ft (6.25 m) was reached in December 1861, and 20.1 ft (6.13 m) in February 1890 (information from Corps of Engineers). Flood of Jan. 1, 1943, reached a stage of 19.1 ft (5.82 m) from National Weather Service.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,700 ft^3/s (331 m^3/s) May 18, gage height, 4.03 ft (1.228 m); minimum, 2,260 ft^3/s (64.0 m^3/s) Feb. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7960	8470	4340	3500	3050	7280	5110	4040	6600	4120	4250	5000
2	7950	9050	4330	3630	2930	6110	5310	4570	6420	4270	4260	4900
3	7880	8510	4390	3960	2880	6240	5020	5880	6020	4410	4280	4710
4	7820	7770	4450	3910	2810	6220	4730	8120	5880	4470	4370	4740
5	7670	7460	4480	3870	2790	5350	4930	8720	6140	4450	4400	4730
6	7530	7080	4250	3710	2790	4930	5530	8580	5970	4340	4390	4720
7	7330	6920	4240	3630	2710	5400	5950	7760	5710	4240	4410	5040
8	7240	6880	4360	3680	2680	7190	6400	6880	5480	4170	4430	5290
9	7250	6790	4630	3680	2680	9590	6930	6210	5150	4140	4410	5490
10	7250	6820	4390	3700	2660	10500	6240	6330	4930	4180	4320	5550
11	7360	6910	4160	3690	2660	8010	5520	7980	4810	4160	4320	5550
12	7240	6850	4130	3730	2610	7730	5120	7710	4550	4120	4320	5520
13	6790	6550	3910	3850	2600	8020	5030	6910	4470	4130	4450	5580
14	5530	6510	3770	5060	2610	6880	5170	6280	4430	4110	4540	5620
15	6800	6690	3780	5020	2580	5990	4920	6160	4300	4130	4650	5540
16	7060	7260	3720	4840	2420	5430	4880	6740	4180	4350	5000	5380
17	7110	7280	3590	4380	2370	5030	4740	8500	4070	4520	5070	5390
18	7120	7750	3440	3800	2360	4720	4430	11400	3970	4520	5070	5560
19	7140	7380	3390	3700	2340	4780	4310	10800	3900	4440	5100	5790
20	7040	6910	3380	3650	2340	5060	4150	9020	3940	4430	5100	5870
21	7200	6770	3370	3610	2450	4800	4080	8200	3940	4520	5120	6000
22	7540	6850	3390	3530	2870	4550	3970	7420	3870	4590	5180	5780
23	7500	6690	3390	3450	3260	4680	3890	7390	3760	4600	5090	6440
24	7500	6380	3280	3420	3260	5000	3990	7900	3640	4610	5570	7160
25	8050	5720	3240	3340	3270	4970	4060	7670	3840	4590	5430	7150
26	8470	5280	3410	3100	3310	4680	4340	7310	4010	4460	5030	7040
27	7960	5100	3570	3050	3510	4680	4140	8210	3930	4330	4690	7050
28	7770	5140	3680	3020	5250	5530	4020	8250	3880	4310	4590	7940
29	7960	5170	3610	3010	---	5510	3930	7790	3920	4270	4720	8290
30	8000	5020	3700	3000	---	5370	3860	7240	4030	4250	5070	8450
31	8030	---	3530	3010	---	5100	---	6930	---	4270	5130	---
TOTAL	231050	203960	119300	114530	80050	185330	144700	232900	139740	134500	146760	177270
MEAN	7453	6799	3848	3695	2859	5978	4823	7513	4658	4339	4734	5909
MAX	8470	9050	4630	5060	5250	10500	6930	11400	6600	4610	5570	8450
MIN	5530	5020	3240	3000	2340	4550	3860	4040	3640	4110	4250	4710
AC-FT	458300	404600	236600	227200	158800	367600	287000	462000	277200	266800	291100	351600

CAL YR 1976 TOTAL 3788050 MEAN 10350 MAX 65700 MIN 3240 AC-FT 7514000
WTR YR 1977 TOTAL 1910090 MEAN 5233 MAX 11400 MIN 2340 AC-FT 3789000

14166000 WILLAMETTE RIVER AT HARRISBURG, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 24.0°C Aug. 12, 1973; minimum, 0.0°C Jan. 8, 9, 1973.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.0°C Aug. 3, 12; minimum recorded, 2.5°C Jan. 27.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	15.0	14.5	14.0	8.0	6.5	---	---	6.5	6.0	8.0	7.0
2	16.0	14.5	14.0	14.0	7.5	6.5	---	---	7.0	6.0	---	7.0
3	15.0	14.5	14.5	14.0	7.0	7.0	---	---	6.5	6.0	---	---
4	14.5	11.5	14.0	13.5	7.5	7.0	---	---	6.5	5.5	---	---
5	14.5	11.5	13.5	13.0	7.5	7.0	---	---	6.0	5.5	---	---
6	15.5	11.5	13.5	13.0	8.5	7.0	---	---	6.5	6.0	---	---
7	16.0	15.0	13.0	12.5	8.0	7.0	---	---	7.0	6.0	7.5	---
8	16.0	15.0	13.5	13.0	7.0	6.5	---	---	7.5	6.5	8.0	6.5
9	15.5	15.0	13.5	13.0	6.5	6.5	---	---	8.0	6.5	8.5	7.0
10	16.0	15.0	13.0	12.5	6.5	6.5	---	---	8.5	7.5	8.5	8.0
11	16.5	15.5	13.0	12.5	---	---	---	---	9.0	8.0	8.5	7.0
12	16.0	15.0	12.5	12.0	---	---	---	---	9.5	8.5	8.0	6.5
13	16.0	15.0	12.0	11.5	7.0	6.5	---	---	9.5	8.5	8.5	7.0
14	16.0	14.0	12.5	12.0	7.0	6.5	---	---	9.5	8.5	9.0	7.5
15	14.5	13.5	13.0	12.5	7.5	6.5	---	---	9.5	8.0	9.0	8.0
16	14.5	13.5	13.5	13.0	7.0	6.5	---	---	10.0	8.5	8.5	8.0
17	14.0	13.0	13.5	13.0	7.0	6.5	---	---	10.5	9.0	9.0	8.0
18	14.0	13.0	13.0	12.0	7.5	7.0	---	---	10.0	8.5	9.5	8.0
19	14.0	13.0	12.0	11.5	7.0	6.5	---	---	9.5	8.0	10.5	8.5
20	14.0	13.0	11.5	11.0	6.5	6.0	7.0	---	9.0	8.5	11.0	9.0
21	14.0	13.0	11.5	11.0	6.0	5.5	7.0	6.5	9.0	8.0	11.0	---
22	14.5	13.5	11.5	11.0	5.5	5.5	7.0	6.0	8.5	7.5	10.0	9.5
23	14.0	13.0	11.5	10.5	---	5.5	6.5	5.5	7.5	6.5	10.0	9.0
24	14.0	13.0	11.0	10.5	---	---	6.0	4.5	7.0	6.5	10.5	9.5
25	14.0	13.5	11.0	9.5	---	---	5.5	4.0	7.0	6.0	10.0	9.5
26	14.0	13.0	10.0	8.0	---	---	5.5	4.0	7.5	6.5	10.0	8.5
27	14.0	13.0	8.5	7.0	---	---	5.5	2.5	8.5	7.5	9.0	7.5
28	13.5	13.0	7.5	7.0	---	---	5.5	4.0	8.5	8.0	9.0	7.5
29	13.5	13.0	7.5	7.0	---	---	5.0	4.0	---	---	10.0	7.5
30	14.0	13.0	7.5	7.0	---	---	5.0	3.5	---	---	9.5	8.5
31	14.5	13.5	---	---	---	---	6.0	5.0	---	---	---	8.0
MONTH	16.5	11.5	14.5	7.0	8.5	5.5	7.0	2.5	10.5	5.5	11.0	6.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	8.0	13.5	12.5	15.5	13.5	20.0	18.0	20.5	18.5	17.0	15.5
2	10.0	---	13.0	11.5	14.5	13.0	18.5	17.0	20.5	18.5	16.5	16.0
3	11.0	8.5	13.0	12.0	14.0	13.0	17.0	16.0	21.0	18.5	17.0	16.0
4	12.5	10.0	11.5	10.0	14.5	12.5	16.0	14.5	20.0	18.5	17.5	16.5
5	13.5	11.0	10.5	9.5	17.0	13.5	16.0	14.5	20.0	18.0	17.5	16.5
6	13.5	11.5	11.5	9.0	18.5	15.5	17.0	14.0	20.0	18.0	17.5	15.5
7	13.5	11.5	12.0	10.0	19.0	16.0	18.5	15.5	20.0	18.0	17.5	16.0
8	12.5	11.0	13.0	10.0	17.5	15.0	19.0	16.5	20.0	18.0	16.5	15.5
9	11.0	10.0	14.5	11.5	17.5	14.5	18.0	16.0	20.0	18.0	16.5	15.0
10	11.0	9.0	13.5	11.0	17.5	15.0	17.5	14.5	20.5	18.0	16.5	15.0
11	12.0	10.0	12.0	10.0	16.5	15.0	19.0	16.0	20.5	18.5	16.5	15.5
12	12.5	10.5	12.5	10.0	16.5	14.0	18.5	16.5	21.0	19.0	17.0	15.5
13	12.0	11.0	13.5	11.0	17.5	14.5	17.5	15.0	20.5	18.5	17.5	---
14	11.5	9.5	13.5	11.5	17.0	15.5	19.0	16.0	19.5	18.0	16.5	15.0
15	11.5	10.5	12.5	11.0	17.0	15.0	19.5	17.0	19.5	17.5	15.5	14.5
16	11.5	10.5	11.5	10.5	18.5	15.5	19.5	17.5	20.5	18.5	15.0	14.0
17	12.0	10.0	12.0	10.0	18.5	16.5	18.5	17.0	20.0	19.0	15.0	14.5
18	11.5	10.0	12.0	10.0	17.5	16.0	18.0	17.0	19.5	18.5	15.0	14.5
19	11.5	9.5	13.0	10.5	18.0	16.0	18.0	15.5	19.0	17.5	15.0	14.5
20	12.0	10.5	13.5	12.0	17.0	16.0	19.0	16.5	18.5	16.5	15.0	14.0
21	12.0	11.5	14.0	12.5	18.0	15.0	19.0	16.5	16.5	16.0	15.5	14.5
22	12.5	11.0	13.5	12.0	19.0	17.0	19.5	17.0	18.5	16.0	15.5	14.0
23	13.5	11.5	12.0	11.0	20.0	17.5	19.0	17.5	18.0	17.0	15.0	14.0
24	14.0	12.5	13.5	10.5	20.5	17.5	20.0	17.5	17.5	17.0	14.5	13.5
25	13.0	12.0	13.0	12.0	20.0	18.0	16.5	16.5	17.0	15.5	15.5	14.0
26	14.0	11.5	13.5	11.5	20.5	17.5	18.5	16.0	16.5	15.0	15.0	14.0
27	14.0	12.0	12.5	11.5	20.0	17.5	18.5	17.0	16.5	15.5	15.0	14.0
28	14.0	13.0	13.0	10.5	20.5	17.5	19.0	17.0	17.5	16.0	14.5	14.0
29	14.0	12.5	14.5	11.5	19.5	17.5	19.0	16.5	17.0	16.0	14.0	13.5
30	14.0	13.0	13.5	12.5	20.0	17.0	19.5	17.0	17.5	16.0	14.5	13.5
31	---	---	14.5	12.5	---	---	20.0	18.0	17.0	15.5	---	---
MONTH	14.0	8.0	14.5	9.0	20.5	12.5	20.0	14.0	21.0	15.0	17.5	13.5

14166500 LONG TOM RIVER NEAR NOTI, OR

LOCATION.--Lat 44°03'00", long 123°25'30", in sec.33, T.17 S., R.6 W., Lane County, Hydrologic Unit 17090003, on left bank 0.2 mi (0.3 km) upstream from Southern Pacific Railroad bridge, 0.8 mi (1.3 km) downstream from Noti Creek, 1.3 mi (2.1 km) southeast of Noti, and at mile 37.4 (60.2 km).

DRAINAGE AREA.--89.3 mi^2 (231.3 km^2).

PERIOD OF RECORD.--October 1935 to current year.

REVISED RECORDS.--WSP 1318: 1936(M). WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 389.05 ft (118.582 m) above mean sea level (levels by U.S. Weather Bureau). Prior to Nov. 6, 1940, nonrecording gage at same site and datum.

REMARKS.--Records fair. Slight regulation caused by logpond above Noti. No diversion above station.

AVERAGE DISCHARGE.--42 years, 237 ft^3/s (6.712 m^3/s), 36.04 in/yr (915 mm/yr), 171,700 acre-ft/yr (212 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,990 ft^3/s (198 m^3/s) Dec. 22, 1955, gage height, 20.17 ft (6.148 m); minimum, 0.04 ft^3/s (0.001 m^3/s) Aug. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 862 ft^3/s (24.4 m^3/s) Mar. 8, gage height, 7.38 ft (2.249 m), no peak above base of 1,600 ft^3/s (45.3 m^3/s); minimum, 0.04 ft^3/s (0.001 m^3/s) Aug. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	52	18	24	20	470	98	53	45	9.1	.60	9.1
2	11	48	18	28	20	272	92	60	51	9.4	.48	8.2
3	13	31	18	36	18	208	83	70	34	8.9	.36	8.2
4	14	25	18	34	17	172	80	86	44	9.1	.28	8.6
5	14	20	18	32	17	142	77	94	51	9.4	.22	8.6
6	13	18	18	26	16	119	72	86	40	9.7	.16	8.6
7	13	18	19	25	17	362	65	77	35	9.1	.12	7.8
8	12	18	21	22	17	753	69	92	30	8.0	.09	6.8
9	12	17	49	20	16	749	69	83	28	7.7	.07	6.5
10	12	18	36	22	17	553	63	79	26	7.7	.05	5.3
11	14	19	27	23	18	350	60	71	28	8.0	.05	4.8
12	14	18	28	25	20	327	58	59	25	7.7	.05	4.6
13	14	18	23	36	20	337	57	54	24	7.5	.04	4.4
14	13	21	21	45	18	278	54	50	21	6.9	.05	3.7
15	13	35	20	35	18	224	51	49	21	6.7	.25	4.1
16	13	53	20	30	18	183	51	49	20	6.5	.51	5.6
17	13	48	20	28	18	155	49	49	18	6.5	.77	6.5
18	13	49	20	27	20	137	45	44	17	6.0	1.5	8.6
19	13	46	19	25	17	127	46	42	18	6.2	1.7	20
20	12	40	19	24	17	115	46	40	18	6.5	1.9	29
21	12	34	19	23	27	104	46	36	18	5.4	1.7	31
22	13	28	18	22	95	92	45	35	19	5.1	2.2	16
23	13	25	19	21	115	87	43	35	17	4.9	2.7	13
24	16	23	20	20	256	111	42	35	20	4.7	7.1	19
25	43	21	20	19	215	112	41	33	15	4.4	14	20
26	41	21	27	18	172	100	45	35	14	3.4	15	16
27	24	20	44	18	147	105	44	40	12	2.4	14	13
28	19	19	39	17	363	128	41	53	11	2.0	11	13
29	18	19	30	18	---	126	39	38	11	1.4	11	13
30	20	18	28	17	---	115	44	34	10	1.1	13	12
31	20	---	25	20	---	104	---	33	---	.95	11	---
TOTAL	495	840	739	780	1749	7217	1715	1694	741	192.35	111.95	335.0
MEAN	16.0	28.0	23.8	25.2	62.5	233	57.2	54.6	24.7	6.20	3.61	11.2
MAX	43	53	49	45	363	753	98	94	51	9.7	15	31
MIN	10	17	18	17	16	87	39	33	10	.95	.04	3.7
CFSM	.18	.31	.27	.28	.70	2.61	.64	.61	.28	.07	.04	.13
IN.	.21	.35	.31	.32	.73	3.01	.71	.71	.31	.08	.05	.14
AC-FT	982	1670	1470	1550	3470	14310	3400	3360	1470	382	222	664

CAL YR 1976 TOTAL 59630.70 MEAN 163 MAX 3600 MIN 8.3 CFSM 1.83 IN 24.84 AC-FT 118300
WTR YR 1977 TOTAL 16609.30 MEAN 45.5 MAX 753 MIN .04 CFSM .51 IN 6.92 AC-FT 32940

14167000 COYOTE CREEK NEAR CROW, OR

LOCATION.--Lat 44°01'19", long 123°15'17", in SW¼NE¼ sec.11, T.18 S., R.5 W., Lane County, Hydrologic Unit 17090003, on right bank 1.0 mi (1.6 km) downstream from Spencer Creek, 4.3 mi (6.9 km) northeast of Crow, and at mile 3.8 (6.1 km).

DRAINAGE AREA.--95.1 mi^2 (246.3 km^2).

PERIOD OF RECORD.--July 1940 to current year.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 374.0 ft (114.00 m) above mean sea level (Corps of Engineers bench mark). Prior to Aug. 31, 1940, nonrecording gage near same site at different datums.

REMARKS.--Records fair. No regulation. Several small diversions for irrigation above station.

AVERAGE DISCHARGE.--37 years, 180 ft^3/s (5.098 m^3/s), 25.70 in/yr (653 mm/yr), 130,400 acre-ft/yr (161 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft^3/s (300 m^3/s) Feb. 10, 1961, gage height, 14.43 ft (4.398 m), from rating curve extended above 4,700 ft^3/s (133 m^3/s); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 474 ft^3/s (13.4 m^3/s) Mar. 10, gage height, 5.37 ft (1.637 m), no peak above base of 1,600 ft^3/s (45.3 m^3/s); no flow Aug. 6 to Sept. 26, Sept. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	1.9	1.9	5.0	2.5	160	35	19	15	2.1	.02	.00
2	.05	2.5	1.9	4.7	3.1	107	33	23	15	3.1	.02	.00
3	.07	4.7	1.9	5.7	3.1	72	30	28	13	1.2	.01	.00
4	.07	4.7	1.9	7.2	3.4	56	27	54	17	.32	.01	.00
5	.06	3.4	1.9	6.4	3.4	44	25	55	20	.20	.01	.00
6	.10	2.5	1.9	5.3	3.1	38	24	62	17	.09	.00	.00
7	.10	3.7	1.9	4.7	3.1	67	23	52	13	.63	.00	.00
8	.10	2.5	2.3	4.0	2.8	184	27	84	10	.78	.00	.00
9	.10	.63	3.4	3.4	2.8	354	32	62	8.1	.78	.00	.00
10	.10	.95	4.0	2.8	2.8	388	27	60	7.2	1.4	.00	.00
11	.10	2.8	4.7	3.1	2.8	216	23	48	12	.63	.00	.00
12	.10	8.5	4.4	3.7	3.1	237	22	40	12	.26	.00	.00
13	.10	8.1	4.0	4.4	2.8	225	20	34	11	.20	.00	.00
14	.10	7.2	3.4	5.3	2.8	154	19	30	11	.19	.00	.00
15	.10	6.4	3.1	5.3	2.8	108	17	29	10	.09	.00	.00
16	.10	5.7	2.8	5.0	2.8	80	17	30	10	.08	.00	.00
17	.10	5.7	2.8	4.7	2.8	61	16	35	10	.06	.00	.00
18	.10	5.3	2.8	4.0	2.5	53	15	31	8.1	.04	.00	.00
19	.10	5.0	2.8	4.0	2.3	48	13	27	3.1	.03	.00	.00
20	.10	4.7	2.8	3.7	2.3	43	13	23	2.3	.04	.00	.00
21	.10	4.7	2.5	3.7	4.4	39	13	22	.63	.06	.00	.00
22	.10	3.7	2.5	3.4	23	35	13	20	14	.63	.00	.00
23	.10	3.7	2.5	3.1	36	36	12	19	6.4	.16	.00	.00
24	.10	3.1	2.5	3.1	43	48	11	20	6.4	.08	.00	.00
25	1.9	2.8	2.8	2.8	43	39	9.0	19	6.4	.25	.00	.00
26	10	2.8	2.8	2.8	33	33	6.8	20	6.0	2.5	.00	.00
27	9.0	3.7	3.4	2.5	29	33	10	20	5.0	4.7	.00	.02
28	5.7	2.5	4.7	2.3	56	45	10	20	5.0	.63	.00	.00
29	3.4	2.1	5.0	2.3	---	48	9.0	19	2.5	.07	.00	.01
30	2.3	2.1	5.0	2.3	---	42	10	16	1.4	.04	.00	.01
31	2.5	---	5.0	2.3	---	38	---	15	---	.03	.00	---
TOTAL	37.02	118.08	95.3	123.0	324.5	3131	561.8	1036	278.53	21.37	.07	.04
MEAN	1.19	3.94	3.07	3.97	11.6	101	18.7	33.4	9.28	.69	.002	.001
MAX	10	8.5	5.0	7.2	56	388	35	84	20	4.7	.02	.02
MIN	.05	.63	1.9	2.3	2.3	33	6.8	15	.63	.03	.00	.00
CFSM	.01	.04	.03	.04	.12	1.06	.20	.35	.10	.007	.000	.000
IN.	.01	.05	.04	.05	.13	1.22	.22	.41	.11	.01	.00	.00
AC-FT	73	234	189	244	644	6210	1110	2050	552	42	.1	.08

CAL YR 1976 TOTAL 42978.40 MEAN 117 MAX 3670 MIN .00 CFSM 1.23 IN 16.81 AC-FT 85250
WTR YR 1977 TOTAL 5726.71 MEAN 15.7 MAX 388 MIN .00 CFSM .17 IN 2.24 AC-FT 11360

14168000 FERN RIDGE LAKE NEAR ELMIRA, OR

LOCATION.--Lat 44°07'15", long 123°18'00", near center of sec.4, T.17 S., R.5 W., Lane County, Hydrologic Unit 17090003, in control house at spillway section of dam across Long Tom River and Coyote Creek, 4.5 mi (7.2 km) northeast of Elmira, and at mile 25.7 (41.4 km).

DRAINAGE AREA.--252 mi^2 (653 km^2), not including Amazon Creek basin (see REMARKS).

PERIOD OF RECORD.--October 1941 to current year. Prior to October 1971, published as Fern Ridge Reservoir near Elmira.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earth-fill dam with concrete outlet and spillway, completed in 1941 by Corps of Engineers; storage began Nov. 13, 1941. Total capacity, 116,800 acre-ft (144 hm^3) at elevation 375.1 ft (114.33 m), maximum pool elevation. Usable capacity, 101,100 acre-ft (125 hm^3) between elevations 340.0 ft (103.63 m), sill of outlet gate, and 373.5 ft (113.84 m), normal maximum operating pool level. Reservoir used for flood control and improvement of navigation. Since November 1951, most of flow of Amazon Creek has been diverted in SE¼ sec.29, T.17 S., R.4 W., and discharged into Fern Ridge Reservoir; drainage area at point of diversion, 21.3 mi^2 (55.2 km^2).

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 124,500 acre-ft (154 hm^3) Dec. 27, 1955, elevation, 375.83 ft (114.553 m); minimum since first filling in 1942, 163 acre-ft (201,000 m^3) Nov. 11, 1950, elevation, 344.00 ft (104.851 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 86,120 acre-ft (106 hm^3) Oct. 1, elevation, 371.81 ft (113.328 m); minimum, 5,190 acre-ft (6.40 hm^3) Dec. 25, elevation, 351.59 ft (107.165 m).

Capacity table (elevation, in feet, and usable contents, in acre-feet)

349	2,270	356	12,440	364	37,490	372	87,720
350	3,250	358	17,020	366	46,940	374	105,800
352	5,730	360	22,670	368	58,320	376	126,300
354	8,760	362	29,460	370	71,900		

ELEVATION, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	371.80	361.16	352.38	351.76	352.39	357.22	365.42	366.32	367.36	367.03	365.89	363.25
2	371.78	360.62	352.33	351.82	352.41	357.73	365.48	366.37	367.37	367.00	365.84	363.21
3	371.76	360.03	352.27	351.82	352.43	358.06	365.53	366.43	367.41	366.97	365.80	363.19
4	371.61	359.41	352.21	351.82	352.45	358.30	365.58	366.51	367.44	366.94	365.70	363.14
5	371.36	358.76	352.16	351.81	352.47	358.49	365.63	366.60	367.47	366.90	365.59	363.10
6	371.09	358.09	352.12	351.82	352.48	358.74	365.67	366.66	367.48	366.86	365.44	363.06
7	370.78	357.37	352.06	351.82	352.50	359.22	365.70	366.72	367.48	366.84	365.32	363.01
8	370.41	356.58	352.09	351.77	352.51	360.14	365.77	366.80	367.46	366.81	365.19	362.95
9	370.05	355.85	352.08	351.75	352.53	361.19	365.81	366.86	367.46	366.80	365.00	362.92
10	369.70	355.31	352.09	351.75	352.54	361.98	365.84	366.90	367.46	366.75	364.90	362.89
11	369.32	354.84	352.08	351.79	352.56	362.43	365.88	366.94	367.44	366.72	364.81	362.84
12	368.92	354.41	352.06	351.80	352.58	362.95	365.91	366.98	367.44	366.70	364.69	362.80
13	368.51	354.12	352.04	351.91	352.59	363.35	365.92	367.00	367.42	366.65	364.57	362.76
14	368.14	353.80	352.01	351.98	352.60	363.63	365.95	367.03	367.41	366.62	364.44	362.71
15	367.82	353.65	351.90	352.04	352.63	363.85	365.98	367.05	367.40	366.59	364.32	362.67
16	367.51	353.40	351.87	352.08	352.67	364.01	365.99	367.09	367.38	366.55	364.20	362.63
17	367.16	353.17	351.82	352.12	352.70	364.14	366.01	367.11	367.37	366.51	364.07	362.59
18	366.85	352.93	351.79	352.15	352.73	364.26	366.03	367.13	367.35	366.50	363.94	362.59
19	366.50	352.82	351.75	352.17	352.77	364.36	366.04	367.15	367.34	366.45	363.82	362.60
20	366.18	352.83	351.71	352.19	352.82	364.45	366.06	367.17	367.34	366.42	363.70	362.58
21	365.81	352.81	351.67	352.21	353.04	364.52	366.09	367.17	367.32	366.36	363.58	362.56
22	365.44	352.80	351.67	352.22	353.45	364.59	366.11	367.19	367.30	366.32	363.50	362.54
23	365.05	352.77	351.65	352.23	354.00	364.71	366.12	367.20	367.28	366.28	363.47	362.56
24	364.74	352.74	351.61	352.24	354.49	364.77	366.15	367.21	367.26	366.24	363.51	362.54
25	364.35	352.69	351.63	352.24	355.06	364.88	366.18	367.24	367.23	366.20	363.50	362.52
26	363.95	352.61	351.66	352.25	355.37	364.96	366.19	367.25	367.20	366.17	363.47	362.49
27	363.52	352.58	351.67	352.27	355.75	365.04	366.20	367.28	367.17	366.12	363.44	362.49
28	363.06	352.53	351.70	352.29	356.43	365.13	366.21	367.28	367.13	366.07	363.40	362.48
29	362.63	352.48	351.73	352.30	---	365.21	366.22	367.30	367.08	366.01	363.38	362.45
30	362.13	352.43	351.73	352.33	---	365.29	366.28	367.31	367.06	365.98	363.32	362.42
31	361.65	---	351.72	352.36	---	365.37	---	367.36	---	365.93	363.29	---
MEAN	367.41	354.85	351.91	352.04	353.18	362.68	365.93	366.99	367.34	366.53	364.36	362.75
MAX	371.80	361.16	352.38	352.36	356.43	365.37	366.28	367.36	367.48	367.03	365.89	363.25
MIN	361.65	352.43	351.61	351.75	352.39	357.22	365.42	366.32	367.06	365.93	363.29	362.42
(†)	28,180	6,350	5,360	6,250	13,340	43,780	48,410	54,450	52,710	46,580	34,490	31,040
(‡)	-57,940	-21,830	-990	+890	+7,090	+30,440	+4,630	+6,040	-1,740	-6,130	-12,090	-3,450

CAL YR 1976 MEAN 366.75 MAX 373.71 MIN 351.61 AC-FT‡ -1,890
WTR YR 1977 MEAN 361.38 MAX 371.80 MIN 351.61 AC-FT‡ -55,080

† Contents in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14169001 LONG TOM RIVER NEAR ALVADORE, OR

LOCATION.--Lat 44°07'25", long 123°17'55", in SW¼NE¼ sec.4, T.17 S., R.5 W., Lane County, Hydrologic Unit 17090003, on left bank 0.2 mi (0.3 km) downstream from Fern Ridge Dam, 1.7 mi (2.7 km) west of Alvadore, and at mile 25.5 (41.0 km).

DRAINAGE AREA.--252 mi^2 (653 km^2), not including Amazon Creek basin.

PERIOD OF RECORD.--August 1939 to current year. Prior to October 1943, published as "at Smithfield," and October 1943 to September 1959, as "below Fern Ridge Dam, near Smithfield."

REVISED RECORDS.--WSP 1248: 1940-41, 1948.

GAGE.--Water-stage recorder and masonry control. Datum of gage is 332.00 ft (101.194 m) above mean sea level (levels by Corps of Engineers). Prior to Sept. 21, 1939, nonrecording gage and Sept. 21, 1939, to Sept. 30, 1943, water-stage recorder at site 2.5 mi (4.0 km) downstream at datum 11.09 ft (3.380 m) lower.

REMARKS.--Records fair. Flow regulated since 1941 by Fern Ridge Lake (see station 14168000). Several small diversions for irrigation above station. Records include diversion to Coyote Creek Channel. Point of diversion is 500 ft (152 m) upstream and point of return, 2.3 mi (3.7 km) downstream. Discharge not adjusted for storage or release from Fern Ridge Lake as evaporation from reservoir at times exceeds natural flow and diversions, and beginning in November 1951, most of flow of Amazon Creek has been diverted into Fern Ridge Lake.

AVERAGE DISCHARGE.--38 years, 541 ft^3/s (15.32 m^3/s), 392,000 acre-ft/yr (483 hm^3/yr), adjusted for diversion to Coyote Creek since 1943.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft^3/s (326 m^3/s) Jan. 1, 1943 gage height, 15.12 ft (4.609 m), site and datum then in use; minimum daily, 2 ft^3/s (0.057 m^3/s) Aug. 7, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,360 ft^3/s (38.5 m^3/s) Oct. 12; minimum daily, 3.4 ft^3/s (0.096 m^3/s) Apr. 22, 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	917	50	44	18	5.3	3.5	7.2	11	54	75	65
2	39	923	50	44	19	4.2	3.5	8.2	11	54	77	65
3	39	931	50	44	20	4.8	3.5	8.8	11	54	75	65
4	571	917	50	44	20	4.5	3.8	9.7	12	53	185	65
5	989	888	49	44	20	4.0	4.2	10	11	53	292	66
6	1040	874	48	44	19	4.1	4.2	10	12	51	292	66
7	1220	874	47	44	19	4.6	4.2	10	12	51	292	66
8	1310	874	45	44	18	5.4	3.5	10	11	51	266	66
9	1310	756	45	44	19	6.3	3.8	9.8	11	51	249	65
10	1320	511	45	44	19	5.8	3.8	9.5	14	51	249	65
11	1320	407	45	44	19	5.7	3.7	10	25	51	245	65
12	1330	333	45	34	19	6.2	3.7	10	32	50	245	64
13	1340	257	45	25	19	5.0	3.7	10	33	51	245	64
14	1190	253	45	24	19	4.2	3.7	10	33	51	245	64
15	965	226	45	24	11	4.0	3.7	9.7	36	51	245	64
16	923	206	44	24	5.6	4.1	3.7	9.7	38	51	245	64
17	930	203	44	25	5.4	3.7	4.1	10	38	51	241	64
18	916	199	44	28	5.4	3.7	4.1	11	38	51	241	62
19	930	90	44	28	5.7	3.6	4.1	11	38	58	241	63
20	930	55	44	28	6.9	3.6	4.1	11	38	65	241	63
21	930	54	44	26	6.8	3.9	4.1	11	38	73	241	65
22	923	52	44	25	7.9	4.3	3.4	11	38	77	143	64
23	923	52	44	25	6.6	3.9	3.7	11	39	77	71	65
24	930	50	44	25	6.5	3.7	3.4	11	48	77	67	65
25	924	49	44	26	6.3	3.7	3.4	11	52	69	66	63
26	916	49	44	23	6.3	3.7	4.0	11	51	75	66	65
27	923	49	44	18	5.4	3.7	5.2	11	51	79	63	65
28	923	49	44	17	5.5	3.6	5.8	11	51	75	63	63
29	916	49	44	17	---	3.6	5.8	11	52	73	65	65
30	923	49	44	17	---	3.6	5.8	11	52	75	65	65
31	923	---	44	18	---	3.6	---	10	---	75	65	---
TOTAL	28806	11196	1408	961	358.3	134.1	121.2	315.6	937	1878	5461	1936
MEAN	929	373	45.4	31.0	12.8	4.33	4.04	10.2	31.2	60.6	176	64.5
MAX	1340	931	50	44	20	6.3	5.8	11	52	79	292	66
MIN	39	49	44	17	5.4	3.6	3.4	7.2	11	50	63	62
AC-FT	57140	22210	2790	1910	711	266	240	626	1860	3730	10830	3840

CAL YR 1976 TOTAL 136441.0 MEAN 373 MAX 4040 MIN 25 AC-FT 270600
WTR YR 1977 TOTAL 53512.2 MEAN 147 MAX 1340 MIN 3.4 AC-FT 106100

14170000 LONG TOM RIVER AT MONROE, OR

LOCATION.--Lat 44°18'50", long 123°17'45", in NE¼ sec.33, T.14 S., R.5 W., Benton County, Hydrologic Unit 17090003, on left bank in canalized river channel at Monroe, 110 ft (34 m) upstream from bridge on State Highway 99W, 0.1 mi (0.2 km) downstream from Shafer Creek, and at mile 6.8 (10.9 km).

DRAINAGE AREA.--391 mi^2 (1,013 km^2).

PERIOD OF RECORD.--November 1920 to July 1921, October 1921 to April 1926, November 1926 to May 1927, October 1927 to current year. Prior to October 1930, published as "near Monroe."

REVISED RECORDS.--WSP 654: Drainage area. WSP 1248: 1923, 1927, 1928(M). WSP 1288: 1952.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 270.57 ft (82.470 m) above mean sea level. Prior to Nov. 24, 1944, nonrecording gage at various sites ranging from present site to 1.5 mi (2.4 km) downstream at different datums.

REMARKS.--Records fair. Flow regulated since 1941 by Fern Ridge Lake (see station 14168000). Several small diversions above station.

AVERAGE DISCHARGE.--54 years (water years 1922-25, 1928-77), 777 ft^3/s (22.00 m^3/s), 562,900 acre-ft/yr (694 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,300 ft^3/s (547 m^3/s) Jan. 2, 1943, gage height, 17.14 ft (5.224 m), site and datum then in use, from graph based on gage readings, includes some overflow from Willamette River near Junction City; no flow Oct. 20-22, 1944 (water filling pool at gage); minimum observed prior to regulation, 7 ft^3/s (0.20 m^3/s) Sept. 29, Oct. 1, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,380 ft^3/s (39.1 m^3/s) Oct. 12, 13, gage height, 5.94 ft (1.811 m); minimum, 13 ft^3/s (0.37 m^3/s) Feb. 17-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	980	53	56	26	397	78	68	42	30	47	50
2	45	980	53	59	26	244	75	65	39	30	39	50
3	45	991	53	59	26	156	71	71	39	32	39	59
4	267	970	53	62	26	138	68	78	45	37	53	59
5	970	950	53	56	26	108	68	78	42	37	233	62
6	1030	929	53	56	26	96	65	75	37	30	244	62
7	1150	929	53	56	26	112	62	65	32	30	256	62
8	1310	919	56	53	28	703	65	59	32	30	244	59
9	1330	868	62	53	28	858	68	56	28	30	206	59
10	1330	595	65	56	28	657	65	53	24	35	196	53
11	1360	411	62	56	30	362	62	50	20	35	196	47
12	1340	390	53	59	30	291	59	47	30	32	196	50
13	1380	273	53	45	28	426	56	45	35	30	196	53
14	1310	267	53	45	30	273	56	47	32	28	196	53
15	1040	262	53	42	26	212	59	50	30	28	196	56
16	960	233	50	42	20	166	56	47	37	28	191	56
17	970	222	53	37	16	147	53	50	37	30	191	56
18	960	222	53	37	14	133	50	47	37	30	196	62
19	970	191	53	39	14	120	47	45	39	24	191	71
20	970	68	53	37	19	112	45	42	42	32	201	82
21	970	62	50	39	26	100	45	39	37	35	196	82
22	960	59	50	37	32	92	42	37	32	39	176	82
23	960	59	53	35	75	100	39	37	32	42	59	78
24	980	56	53	35	96	120	39	42	26	47	62	78
25	991	56	53	32	152	116	39	37	37	47	65	75
26	970	56	59	32	108	96	45	35	45	37	78	78
27	980	56	65	30	92	92	42	39	45	47	71	78
28	980	56	65	26	161	100	39	42	37	45	68	78
29	970	53	62	26	---	96	35	39	30	39	65	75
30	970	53	62	26	---	89	42	39	35	45	65	78
31	980	---	59	26	---	82	---	39	---	47	65	---
TOTAL	29490	12216	1721	1349	1235	6794	1635	1563	1055	1088	4477	1943
MEAN	951	407	55.5	43.5	44.1	219	54.5	50.4	35.2	35.1	144	64.8
MAX	1380	991	65	62	161	858	78	78	45	47	256	82
MIN	42	53	50	26	14	82	35	35	20	24	39	47
AC-FT	58490	24230	3410	2680	2450	13480	3240	3100	2090	2160	8880	3850

CAL YR 1976 TOTAL 199480 MEAN 545 MAX 5340 MIN 22 AC-FT 395700
WTR YR 1977 TOTAL 64566 MEAN 177 MAX 1380 MIN 14 AC-FT 128100

14170500 ROCK CREEK NEAR PHILOMATH, OR

LOCATION.--Lat 44°30'05", long 123°26'20", in SW¼NE¼ sec.29, T.12 S., R.6 W., Benton County, Hydrologic Unit 17090003, on left bank 600 ft (183 m) upstream from bridge on State Highway 34, 4.5 mi (7.2 km) southwest of Philomath, and at mile 0.4 (0.6 km).

DRAINAGE AREA.--14.6 mi^2 (37.8 km^2).

PERIOD OF RECORD.--October 1945 to September 1952, water years 1953-60 (annual maximum), October 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 349.08 ft (106.400 m) above mean sea level. Prior to October 1974, at site 0.2 mi (0.3 km) downstream at datum 5.08 ft (1.548 m) higher.

REMARKS.--Records excellent. Flow regulated by small storage reservoir operated by city of Corvallis, most low-water flow diverted to city of Corvallis water supply system.

AVERAGE DISCHARGE.--10 years, 53.2 ft^3/s (1.507 m^3/s), 49.48 in/yr (1,257 mm/yr), 38,540 acre-ft/yr (47.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,190 ft^3/s (62.0 m^3/s) Dec. 21, 1955, gage height, 6.82 ft (2.079 m), at site and datum then in use, from rating curve extended above 810 ft^3/s (22.9 m^3/s), on basis of slope-area measurement of peak flow; maximum gage height, 12.14 ft (3.700 m) Dec. 27, 1974; minimum discharge, 0.2 ft^3/s (0.006 m^3/s) Aug. 24, 1946, for several days in summers of 1949 and 1950, Sept. 1-3, 1952.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 24, 1964, reached a stage of 7.30 ft (2.225 m), discharge, 2,500 ft^3/s (708 m^3/s), at site 0.2 mi (0.3 km) downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 500 ft^3/s (14.2 m^3/s) and maximum discharge, 528 ft^3/s (15.0 m^3/s) Mar. 7, gage height, 12.06 ft (3.676 m); minimum, 1.3 ft^3/s (0.037 m^3/s) Jan. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	6.4	3.1	2.6	1.6	154	34	11	19	4.5	2.6	2.3
2	2.0	3.7	2.9	6.2	1.6	89	31	15	17	4.5	2.5	2.3
3	2.3	2.8	2.9	4.5	1.6	84	28	38	17	4.7	2.5	2.4
4	2.0	2.5	2.9	3.7	1.5	62	27	39	20	4.9	2.6	2.5
5	2.0	2.5	2.9	3.1	1.5	46	26	32	18	4.5	2.4	2.5
6	1.9	2.5	2.9	2.6	1.5	52	26	25	16	4.3	2.3	2.1
7	1.9	2.5	2.9	2.6	1.5	322	25	26	14	4.0	2.2	2.3
8	1.9	2.6	13	2.5	1.5	263	25	25	13	3.8	2.1	2.3
9	2.0	2.6	13	2.4	1.5	246	22	20	12	3.8	2.1	2.3
10	2.3	4.1	5.1	2.3	1.6	162	20	19	11	3.8	2.0	2.2
11	2.3	4.1	4.1	2.5	1.6	109	19	17	11	3.7	2.0	2.1
12	2.1	4.0	3.8	3.1	1.5	103	18	15	9.9	3.5	2.0	2.0
13	2.1	4.1	3.7	12	1.5	87	19	13	9.6	3.5	2.0	2.0
14	2.0	5.1	3.7	7.5	1.5	68	17	13	9.6	3.4	2.0	2.2
15	2.1	4.7	3.4	4.5	1.5	56	17	15	8.7	3.2	2.0	2.3
16	2.1	4.7	2.9	3.7	1.4	47	16	17	7.8	3.1	1.9	2.1
17	2.1	4.7	2.6	3.0	1.4	40	15	17	7.8	3.1	1.8	2.4
18	2.0	5.3	2.2	2.6	1.4	37	14	17	7.5	3.1	1.8	5.1
19	2.0	4.0	2.1	2.3	1.4	36	13	15	7.2	3.0	1.9	17
20	2.0	3.8	2.0	2.2	2.8	33	13	14	7.2	2.9	1.9	22
21	2.1	3.7	2.0	2.1	9.6	30	13	13	7.2	2.9	2.0	8.1
22	2.0	3.7	2.0	2.0	31	27	13	13	6.9	3.4	2.0	5.7
23	2.1	3.7	2.4	1.8	19	34	12	13	6.4	3.1	2.0	5.5
24	4.3	3.7	2.3	1.8	47	35	11	11	6.0	3.1	4.1	7.2
25	11	3.7	2.8	1.8	34	31	12	11	6.0	3.1	5.3	6.2
26	3.2	3.5	9.0	1.7	45	27	11	14	5.7	3.1	5.3	5.3
27	2.3	3.2	9.3	1.6	59	71	11	27	5.3	3.0	3.0	4.9
28	2.4	2.9	4.9	1.6	140	59	10	24	5.1	2.9	2.8	6.2
29	3.2	2.9	4.0	1.6	---	49	9.9	19	4.7	2.8	3.4	4.9
30	3.0	2.9	3.4	1.6	---	41	9.6	17	4.3	2.8	2.9	4.5
31	4.9	---	2.6	1.6	---	36	---	19	---	2.6	2.6	---
TOTAL	81.5	110.6	126.8	95.1	416.0	2536	537.5	584	300.9	108.1	78.0	140.9
MEAN	2.63	3.69	4.09	3.07	14.9	81.8	17.9	18.8	10.0	3.49	2.52	4.70
MAX	11	6.4	13	12	140	322	34	39	20	4.9	5.3	22
MIN	1.9	2.5	2.0	1.6	1.4	27	9.6	11	4.3	2.6	1.8	2.0
CFSM	.18	.25	.28	.21	1.02	5.60	1.23	1.29	.69	.24	.17	.32
IN.	.21	.28	.32	.24	1.06	6.46	1.37	1.49	.77	.28	.20	.36
AC-FT	162	219	252	189	825	5030	1070	1160	597	214	155	279

CAL YR 1976 TOTAL 13243.4 MEAN 36.2 MAX 533 MIN 1.9 CFSM 2.48 IN 33.74 AC-FT 26270
WTR YR 1977 TOTAL 5115.4 MEAN 14.0 MAX 322 MIN 1.4 CFSM .96 IN 13.03 AC-FT 10150

14171000 MARYS RIVER NEAR PHILOMATH, OR

LOCATION.--Lat 44°31'35", long 123°20'00", in NE¼SE¼ sec.18, T.12 S., R.5 W., Benton County, Hydrologic Unit 17090003, on left bank 50 ft (15 m) downstream from bridge on Bellfountain Road, 0.6 mi (1.0 km) downstream from Newton Creek, 2.0 mi (3.2 km) southeast of Philomath, and at mile 9.4 (15.1 km).

DRAINAGE AREA.--159 mi^2 (412 km^2), including drainage area of Evergreen Creek above Bellfountain Road, 1.4 mi (2.3 km) south of station.

PERIOD OF RECORD.--October 1960 to current year.

REVISED RECORDS.--WSP 1218: Drainage area. WSP 1935: 1956(M).

GAGE.--Water-stage recorder. Datum of gage is 224.01 ft (68.278 m) above mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1961, nonrecording gage at bridge 50 ft (15 m) upstream at same datum.

REMARKS.--Records good. Records include flow of Evergreen Creek at Bellfountain Road crossing 1.4 mi (2.3 km) south of station, with which overflow from Marys River may at times be mingled. Slight regulation by small storage reservoir on Rock Creek from which municipal supply is diverted for city of Corvallis. Other small diversions above station for irrigation.

AVERAGE DISCHARGE.--37 years, 465 ft^3/s (13.17 m^3/s), 39.72 in/yr (1,009 mm/yr), 336,900 acre-ft/yr (415 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft^3/s (385 m^3/s) Dec. 22, 1964, gage height, 20.72 ft (6.315 m); maximum gage height, 20.91 ft (6.373 m) Jan. 15, 1974; minimum discharge, 0.60 ft^3/s (0.017 m^3/s) Aug. 23, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,960 ft^3/s (55.5 m^3/s) Mar. 9, gage height, 12.96 ft (3.950 m), no peak above base of 3,200 ft^3/s (90.6 m^3/s); minimum, 3.1 ft^3/s (0.088 m^3/s) Aug. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	39	25	32	27	1250	354	93	149	35	9.9	18
2	13	34	24	37	28	841	336	123	143	35	7.4	14
3	14	37	25	37	28	629	301	155	125	34	7.0	12
4	14	32	25	38	27	494	283	220	150	33	7.0	13
5	15	30	25	35	26	383	267	283	159	32	7.0	13
6	15	28	25	29	25	323	254	262	134	31	7.2	11
7	15	27	25	29	24	961	236	209	121	30	8.8	11
8	14	27	28	29	24	1360	222	211	115	29	6.8	10
9	14	27	49	29	23	1760	214	175	106	28	4.7	9.0
10	15	27	44	32	23	1590	195	158	99	27	4.7	8.5
11	16	27	39	31	23	1060	176	151	91	26	5.0	8.1
12	16	27	34	34	23	892	161	142	84	25	4.2	8.5
13	15	27	31	49	24	832	149	125	78	24	4.3	6.7
14	16	31	29	82	23	662	143	120	76	22	4.0	6.1
15	15	32	25	73	24	536	129	121	75	22	3.9	6.5
16	15	35	22	59	23	441	119	143	69	20	3.8	7.0
17	16	36	20	51	22	375	110	132	66	23	4.0	9.0
18	16	41	19	45	20	329	101	131	67	23	4.0	14
19	16	37	18	41	21	299	102	123	71	18	4.0	30
20	17	36	18	39	22	267	97	112	67	18	4.3	83
21	16	33	18	37	33	231	91	106	61	17	5.0	58
22	16	31	18	35	94	211	89	103	60	15	5.9	41
23	16	29	18	34	159	216	85	99	54	15	6.5	34
24	18	29	18	32	233	243	83	96	51	17	11	36
25	35	29	19	31	246	222	83	93	46	14	17	45
26	38	29	32	29	251	197	86	97	46	14	28	38
27	30	28	65	28	243	265	88	121	41	14	25	33
28	27	29	66	28	590	421	88	140	38	12	21	33
29	25	28	48	27	---	436	86	120	37	12	18	29
30	22	26	40	25	---	405	86	119	37	12	18	29
31	29	---	35	30	---	369	---	123	---	13	18	---
TOTAL	572	928	927	1167	2329	18500	4814	4406	2516	690	286.2	674.4
MEAN	18.5	30.9	29.9	37.6	83.2	597	160	142	83.9	22.3	9.23	22.5
MAX	38	41	66	82	590	1760	354	283	159	35	28	83
MIN	13	26	18	25	20	197	83	93	37	12	3.8	6.1
CFSM	.12	.19	.19	.24	.52	3.76	1.01	.89	.53	.14	.06	.14
IN.	.13	.22	.22	.27	.54	4.33	1.13	1.03	.59	.16	.07	.16
AC-FT	1130	1840	1840	2310	4620	36690	9550	8740	4990	1370	568	1340

CAL YR 1976 TOTAL 121641.0 MEAN 332 MAX 4280 MIN 13 CFSM 2.09 IN 28.46 AC-FT 241300
WTR YR 1977 TOTAL 37809.6 MEAN 104 MAX 1760 MIN 3.8 CFSM .65 IN 8.85 AC-FT 75000

14171750 WILLAMETTE RIVER ABOVE CALAPOOIA RIVER, AT ALBANY, OR

LOCATION.--Lat 44°38'30", long 123°07'00", in NW¼ sec.1, T.11 S., R.4 W., Benton County, Hydrologic Unit 17090003, temperature recorder on left bank, 0.6 mi (1.0 km) upstream from gaging station at Albany, 0.4 mi (0.6 km) upstream from Calapooia River, and at mile 119.9 (192.9 km).

DRAINAGE AREA.--4,460 mi^2 (11,600 km^2), approximately.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1963 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 23.5°C Aug. 3, 1977; minimum, 0.5°C Jan. 26, 1969, Dec. 11, 1972.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 23.5°C Aug. 3; minimum, 3.0°C Jan. 9.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.5	15.5	13.5	13.0	6.5	6.0	5.5	5.0	7.5	6.5	8.5	7.5
2	16.5	15.0	13.5	13.0	6.0	5.5	5.5	5.0	8.0	6.5	8.0	7.5
3	16.0	14.5	13.5	12.5	6.0	5.5	5.5	5.0	7.5	6.0	8.0	7.0
4	15.5	14.0	13.5	13.0	6.0	5.5	6.5	5.5	7.5	6.5	7.5	7.0
5	15.5	13.5	13.0	12.5	6.0	5.5	6.0	4.5	7.0	6.0	8.0	7.0
6	15.5	14.5	12.5	12.0	6.5	6.0	4.5	4.0	8.0	6.5	8.5	8.0
7	16.5	15.0	13.0	11.5	7.0	6.0	4.5	3.5	7.5	6.5	9.0	7.5
8	16.5	15.5	12.5	11.5	7.5	6.5	4.0	3.5	7.5	6.5	8.5	8.0
9	16.5	14.5	12.5	11.5	7.5	7.0	4.0	3.0	8.5	7.0	8.0	7.5
10	16.0	14.0	12.5	11.0	7.0	6.5	4.5	3.5	9.0	8.0	7.5	7.0
11	16.5	14.0	12.5	11.5	6.5	5.5	5.5	4.5	9.5	8.5	7.5	7.0
12	16.0	14.0	12.0	11.5	5.5	5.5	6.5	5.5	10.5	9.0	8.5	7.5
13	15.5	13.5	11.5	11.0	6.0	5.5	7.5	6.5	11.0	9.5	8.5	7.0
14	16.0	14.5	11.5	11.0	6.0	5.5	7.5	7.0	10.5	8.5	7.5	7.0
15	15.5	14.5	12.5	11.5	7.0	6.0	7.5	6.5	10.5	8.5	8.0	6.5
16	15.0	14.0	13.0	11.5	6.5	6.5	7.0	6.5	10.5	9.0	8.5	7.5
17	15.0	13.5	13.0	12.5	6.5	6.0	7.0	6.5	11.5	9.5	8.5	7.5
18	13.5	13.0	13.0	12.0	6.5	6.0	8.0	6.5	11.5	9.5	8.5	7.5
19	13.5	12.5	12.5	11.0	6.5	6.0	8.5	7.5	11.5	9.5	9.0	7.5
20	13.5	12.5	11.0	10.5	6.5	6.0	7.5	7.0	10.0	9.0	9.0	8.0
21	13.5	12.5	11.0	10.0	6.0	5.5	8.0	7.0	9.5	8.5	10.0	8.0
22	13.0	12.5	11.0	10.0	5.5	5.5	8.0	7.0	9.0	8.0	10.5	9.0
23	13.0	12.5	11.0	9.5	5.5	5.0	7.0	6.5	8.0	7.5	10.0	9.5
24	13.0	12.0	11.0	9.5	5.5	5.0	7.0	6.0	7.5	7.0	10.5	9.5
25	13.0	12.0	11.0	9.5	6.0	5.5	6.5	5.5	7.0	6.5	10.5	9.5
26	13.0	12.5	9.5	8.0	6.5	6.0	6.0	5.0	7.5	6.5	10.0	9.5
27	13.0	11.5	8.0	7.0	7.0	6.5	6.0	5.0	9.0	7.5	10.0	9.0
28	12.5	12.0	7.0	6.5	7.0	6.5	6.0	5.0	9.0	8.0	9.5	9.0
29	12.5	12.0	6.5	6.0	6.5	6.0	6.5	5.0	---	---	9.5	8.5
30	12.5	11.5	6.5	6.0	6.0	5.0	5.5	4.5	---	---	9.5	8.0
31	13.5	12.5	---	---	5.5	5.0	6.5	5.0	---	---	9.0	8.0
MONTH	17.5	11.5	13.5	6.0	7.5	5.0	8.5	3.0	11.5	6.0	10.5	6.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	8.0	15.0	13.0	16.0	14.0	21.5	18.0	22.5	19.5	18.0	16.5
2	9.0	8.0	14.5	13.0	16.0	14.5	20.5	18.5	23.0	21.0	17.5	16.5
3	10.5	7.5	14.5	13.0	15.5	14.5	18.5	17.5	23.5	20.5	17.0	16.5
4	12.0	9.5	14.0	12.0	15.5	13.5	17.5	16.0	23.0	20.0	18.5	17.0
5	13.0	11.0	12.0	11.5	17.5	14.5	17.5	15.5	22.0	19.5	19.0	17.5
6	13.5	12.0	12.0	10.0	19.0	16.5	18.0	15.0	22.0	20.0	18.5	17.0
7	14.0	12.5	12.5	11.0	20.0	17.5	19.5	16.0	22.5	20.0	18.5	16.5
8	13.5	12.5	13.5	12.0	19.5	18.0	20.5	17.5	22.5	19.5	18.0	16.5
9	12.0	11.0	14.5	12.0	19.0	16.5	19.0	18.0	22.5	19.5	17.5	15.5
10	11.0	9.5	14.5	13.5	19.0	16.5	20.0	17.0	22.5	19.0	17.5	16.0
11	12.0	9.5	13.5	12.0	18.0	17.0	20.0	17.5	23.0	19.5	18.0	16.0
12	13.0	10.5	13.0	11.5	18.0	15.5	19.0	18.0	23.0	21.0	18.0	16.5
13	13.0	11.5	13.5	12.0	18.5	16.5	19.5	17.0	23.0	20.0	18.0	16.5
14	13.0	11.0	14.0	12.0	18.5	17.0	20.5	17.5	22.0	20.0	17.5	16.5
15	12.5	11.5	14.0	12.5	17.5	15.5	21.0	18.5	21.5	19.0	16.5	14.0
16	13.0	11.5	13.5	12.0	18.0	15.5	21.5	19.0	22.0	19.0	16.0	14.0
17	12.5	10.5	13.0	12.0	19.0	17.0	21.0	19.0	22.5	20.5	16.0	14.5
18	12.5	11.0	12.5	12.0	18.5	17.0	20.0	18.5	21.5	20.0	16.0	14.5
19	12.5	10.5	13.5	11.5	18.0	16.5	20.5	18.0	21.0	19.0	15.5	14.5
20	12.5	11.0	14.5	13.0	17.5	16.5	21.0	18.0	20.0	18.5	15.5	14.0
21	12.5	11.5	15.0	13.5	18.0	16.0	21.0	18.5	19.0	17.5	16.0	14.5
22	13.5	11.5	14.5	13.0	19.5	17.0	21.5	19.0	19.0	17.0	15.5	13.5
23	14.5	12.5	14.0	12.0	20.0	17.5	21.5	19.5	18.5	17.5	15.5	14.5
24	15.0	13.0	14.0	12.0	21.0	18.0	22.0	19.5	18.5	17.5	15.0	14.0
25	14.5	13.0	14.5	13.0	21.5	19.0	20.5	19.0	18.0	16.5	15.5	13.5
26	15.0	13.0	14.5	13.0	21.5	18.5	20.0	18.0	17.5	16.0	15.5	14.5
27	15.0	13.0	14.0	13.0	20.5	18.5	20.5	18.0	17.5	16.0	15.0	14.5
28	14.5	13.5	13.5	12.0	21.5	18.5	20.5	18.5	18.0	16.5	15.5	14.5
29	15.5	13.0	14.5	12.0	21.0	19.0	21.0	18.5	18.0	17.0	15.0	13.5
30	16.0	14.0	14.5	14.0	21.0	18.5	21.5	19.0	18.5	16.5	15.5	14.0
31	---	---	14.5	13.5	---	---	22.0	19.5	18.5	16.5	---	---
MONTH	16.0	7.5	15.0	10.0	21.5	13.5	22.0	15.0	23.5	16.0	19.0	13.5

14172000 CALAPOOIA RIVER AT HOLLEY, OR

LOCATION.--Lat 44°21'05", long 122°47'10", in SE¼ sec.15, T.14 S., R.1 W., Linn County, Hydrologic Unit 17090003, on right bank 200 ft (61 m) downstream from bridge on State Highway 228, 0.3 mi (0.5 km) southwest of Holley, 5.0 mi (8.0 km) upstream from Brush Creek, and at mile 45.4 (73.0 km).

DRAINAGE AREA.--105 mi^2 (272 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1935 to current year. Prior to October 1963, published as Calapooya River at Holley.

REVISED RECORDS.--WSP 1044: 1943. WSP 1218: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 527.58 ft (160.806 m) above mean sea level. Prior to Oct. 7, 1963, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records good except those for periods of no gage-height record, which are fair. Slight regulation at times during low-water periods by small dam upstream. Diversions for irrigation above station.

AVERAGE DISCHARGE.--42 years, 444 ft^3/s (12.57 m^3/s), 57.42 in/yr (1,458 mm/yr), 321,700 acre-ft/yr (397 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft^3/s (357 m^3/s) Dec. 22, 1964, gage height, 14.60 ft (4.450 m); maximum gage height, 15.30 ft (4.663 m) Dec. 22, 1964 (backwater from debris); minimum discharge observed, 13 ft^3/s (0.37 m^3/s) Sept. 8, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,660 ft^3/s (47.0 m^3/s) Mar. 9, gage height, 4.16 ft (1.270 m), no peak above base of 3,400 ft^3/s (96.3 m^3/s); minimum, 24 ft^3/s (0.68 m^3/s) Oct. 18-22, Aug. 19, but may have been less during period of no gage-height record Aug. 18-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	189	50	64	56	686	531	280	410	81	41	48
2	30	147	49	84	52	499	509	360	354	78	40	41
3	36	96	48	88	50	594	448	700	330	78	39	40
4	33	76	47	80	48	473	468	660	375	81	38	44
5	31	66	46	72	47	405	559	600	346	78	37	40
6	29	59	45	62	45	443	600	560	314	78	37	38
7	28	54	45	65	43	914	642	500	281	73	36	35
8	27	52	58	56	42	1340	751	450	257	69	35	33
9	27	48	102	56	41	1430	660	420	234	67	34	32
10	28	46	73	70	43	959	580	699	219	67	33	32
11	28	45	63	65	50	731	500	718	204	64	32	32
12	27	43	60	70	48	847	430	570	192	62	31	31
13	27	43	58	150	52	699	480	468	178	63	30	30
14	26	54	54	160	53	570	430	414	170	60	28	29
15	26	107	52	130	49	478	390	463	159	59	29	30
16	26	172	50	110	44	419	420	576	149	57	33	30
17	25	128	49	100	45	375	380	999	142	54	29	30
18	25	147	49	90	44	383	350	952	135	57	25	33
19	24	116	47	85	44	433	325	712	131	58	24	44
20	24	98	46	80	45	468	300	594	126	53	25	60
21	24	86	44	76	67	405	275	531	126	50	27	50
22	25	78	44	72	142	424	250	468	118	49	29	43
23	25	72	48	70	135	526	250	478	109	48	32	78
24	31	67	49	66	140	499	260	468	104	49	84	200
25	167	67	48	64	126	433	280	405	100	53	57	100
26	120	63	81	60	164	383	260	499	96	50	55	90
27	66	58	126	58	225	606	250	531	92	48	53	76
28	52	57	96	54	914	606	240	594	89	46	42	105
29	48	54	85	52	---	542	230	515	86	45	67	98
30	46	53	80	52	---	488	220	443	84	44	78	88
31	47	---	70	54	---	463	---	387	---	43	69	---
TOTAL	1207	2441	1862	2415	2854	18521	12268	17014	5710	1862	1249	1660
MEAN	38.9	81.4	60.1	77.9	102	597	409	549	190	60.1	40.3	55.3
MAX	167	189	126	160	914	1430	751	999	410	81	84	200
MIN	24	43	44	52	41	375	220	280	84	43	24	29
CFSM	.37	.78	.57	.74	.97	5.69	3.90	5.23	1.81	.57	.38	.53
IN.	.43	.86	.66	.86	1.01	6.56	4.35	6.03	2.02	.66	.44	.59
AC-FT	2390	4840	3690	4790	5660	36740	24330	33750	11330	3690	2480	3290

CAL YR 1976 TOTAL 122086 MEAN 334 MAX 5610 MIN 24 CFSM 3.18 IN 43.25 AC-FT 242200
WTR YR 1977 TOTAL 69063 MEAN 189 MAX 1430 MIN 24 CFSM 1.80 IN 24.47 AC-FT 137000

NOTE.--No gage-height record Dec. 29 to Feb. 11, Apr. 9 to May 9.

14172000 CALAPOOIA RIVER AT HOLLEY, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1963 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 29.5°C July 17, Aug. 7, 1972, Aug. 12, 16, 1977; minimum, 0.0°C Dec. 19, 20, 1965, Dec. 7, 12-16, 1972.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 29.5°C Aug. 12, 16; minimum, 1.0°C Jan. 25.30.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.5	14.5	11.5	11.0	4.0	2.5	4.0	3.0	6.0	3.5	7.0	6.0
2	18.0	15.5	12.0	11.0	4.0	2.5	5.5	4.0	4.5	3.0	6.5	6.0
3	17.0	14.0	12.5	11.0	4.5	2.5	5.5	4.5	4.5	2.0	7.5	6.0
4	16.0	11.5	11.0	10.0	4.5	3.5	5.5	4.5	5.0	2.0	8.5	6.0
5	16.5	11.0	10.5	9.5	5.0	4.5	5.0	2.0	5.0	2.5	8.5	5.5
6	16.5	11.5	11.5	9.5	6.0	4.5	2.0	1.5	6.5	4.0	8.0	6.0
7	18.0	12.0	11.0	8.5	5.5	4.0	2.0	1.5	6.5	3.5	8.0	7.0
8	16.0	13.0	12.0	9.5	6.5	5.0	2.0	1.5	6.0	3.5	8.0	7.0
9	15.5	12.0	10.5	8.5	7.0	5.0	2.0	1.5	7.0	3.5	7.5	6.5
10	15.0	12.5	10.5	8.0	5.5	4.0	2.0	1.5	8.0	5.0	8.5	6.0
11	17.5	13.5	10.5	8.0	4.5	3.5	2.5	1.5	8.0	5.5	9.0	6.0
12	16.5	12.0	9.5	6.5	4.5	3.5	5.5	2.0	10.5	6.5	8.0	6.0
13	16.0	11.0	8.0	5.5	4.5	3.0	6.5	5.5	11.0	8.5	9.0	5.5
14	15.5	10.5	9.5	7.0	5.0	3.5	5.5	4.5	10.5	7.0	8.0	6.0
15	15.0	10.0	11.0	9.5	6.5	4.5	6.5	4.5	9.5	5.5	9.0	6.0
16	14.5	9.0	11.5	10.5	6.5	5.0	6.0	4.5	9.5	5.5	8.5	5.5
17	13.0	8.0	11.5	10.5	6.0	4.5	6.5	5.0	11.0	7.0	8.5	6.5
18	12.5	7.5	11.0	10.5	6.5	5.0	6.5	5.0	10.0	5.5	8.5	7.0
19	12.0	7.0	10.5	9.0	5.0	4.5	7.0	5.0	9.0	4.5	9.0	7.5
20	11.5	6.5	9.0	8.0	4.5	3.5	5.5	4.0	8.0	6.0	9.0	6.5
21	11.5	6.5	9.5	7.5	3.5	2.5	6.5	4.5	8.0	5.5	10.5	6.5
22	10.5	8.0	9.5	9.0	3.5	3.0	7.0	4.5	7.5	6.0	10.5	7.0
23	10.5	7.0	9.0	8.5	5.5	3.5	4.5	3.0	6.0	4.5	9.5	8.0
24	9.5	7.5	8.5	7.5	4.5	4.0	4.0	2.0	7.0	5.5	9.0	7.0
25	11.0	9.0	9.5	7.5	6.0	4.0	3.5	1.0	6.5	5.5	10.0	7.5
26	10.5	8.5	7.5	4.5	7.5	6.0	2.5	1.0	7.5	6.0	10.0	8.0
27	10.5	7.5	4.5	2.5	7.5	7.0	3.0	1.0	9.5	7.0	9.5	7.0
28	10.0	6.5	4.0	2.0	7.0	5.5	3.5	1.0	8.5	6.0	8.0	6.5
29	10.0	9.0	4.0	2.0	6.0	5.0	3.5	1.0	---	---	9.5	6.5
30	12.0	9.5	4.0	2.0	6.5	5.5	3.0	1.0	---	---	10.5	6.5
31	13.5	10.0	---	---	5.5	3.5	5.0	2.5	---	---	8.0	7.5
MONTH	19.5	6.5	12.5	2.0	7.5	2.5	7.0	1.0	11.0	2.0	10.5	5.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	8.0	13.0	11.0	15.0	13.0	22.5	18.0	27.5	19.0	22.5	14.5
2	11.0	7.5	14.0	11.0	15.5	11.0	22.5	16.5	28.0	20.5	20.5	16.0
3	12.0	7.5	12.0	9.5	13.5	12.5	18.5	16.5	28.5	20.0	21.0	18.0
4	13.0	8.5	11.0	9.0	15.0	12.5	19.0	15.0	27.5	19.5	22.5	20.0
5	13.0	8.5	10.5	8.5	19.5	12.5	18.5	14.0	27.5	19.5	21.5	18.5
6	13.0	8.5	13.0	8.5	20.0	15.5	22.0	15.0	28.0	20.0	23.0	16.5
7	13.0	9.0	12.0	8.5	20.5	16.0	23.5	15.5	28.0	20.0	23.0	16.0
8	11.5	9.0	14.5	9.5	18.5	15.0	23.5	16.5	28.0	20.5	22.5	15.5
9	10.0	8.0	14.0	13.0	18.5	13.5	19.0	16.5	28.0	19.0	22.0	15.5
10	11.0	7.5	12.5	10.0	18.5	14.0	22.5	14.5	28.0	20.0	22.0	15.0
11	12.5	9.5	12.0	9.0	16.5	14.0	24.0	16.5	29.0	20.5	22.5	15.5
12	12.5	8.5	13.5	8.5	19.0	13.5	20.5	17.5	29.5	20.5	23.0	15.5
13	12.0	9.5	14.0	10.5	20.0	14.0	23.0	15.0	28.5	21.0	23.0	16.5
14	12.0	8.0	12.5	11.0	18.0	15.0	24.0	16.0	25.5	20.5	19.0	17.0
15	11.5	9.5	11.5	10.0	19.0	14.5	25.0	17.0	27.5	18.5	18.5	16.0
16	12.5	9.5	11.5	8.5	20.5	14.5	25.0	18.0	29.5	20.0	19.0	14.5
17	12.0	7.5	11.0	9.5	20.5	15.5	24.5	18.5	28.5	21.0	19.0	15.0
18	11.5	7.5	11.5	9.5	20.0	16.5	20.5	18.5	27.5	21.0	18.0	15.5
19	12.5	7.0	14.5	9.5	20.5	16.5	24.0	16.5	27.0	20.0	18.5	16.0
20	12.5	8.5	13.5	10.5	17.0	15.5	25.0	17.5	23.0	20.0	18.0	15.0
21	12.5	10.5	14.5	11.5	21.5	14.5	25.5	18.0	21.0	19.5	17.5	14.5
22	14.0	9.5	12.5	10.5	19.0	18.0	26.0	18.0	26.0	19.5	18.0	13.0
23	15.5	11.5	12.0	10.5	22.5	16.0	25.0	18.5	24.5	18.5	14.5	14.0
24	15.5	11.5	14.0	10.0	23.0	16.5	26.0	18.5	20.0	18.5	14.0	12.5
25	13.5	11.0	13.5	10.0	21.5	18.0	21.0	19.0	18.0	17.0	15.5	12.5
26	14.5	10.5	13.5	11.0	23.0	16.0	24.0	18.0	20.0	16.5	15.0	11.0
27	15.5	10.0	12.0	10.0	23.5	17.0	25.5	18.5	19.5	16.5	13.5	12.5
28	14.5	12.0	13.5	9.5	24.0	16.5	23.0	19.0	21.0	17.5	14.0	12.5
29	16.0	12.0	15.0	9.5	22.5	17.0	25.0	17.0	20.0	18.0	12.5	11.5
30	16.5	12.5	13.5	11.5	23.0	16.5	26.5	17.5	22.0	17.0	14.5	11.5
31	---	---	15.5	12.0	---	---	27.5	18.5	21.0	16.0	---	---
MONTH	16.5	7.0	15.5	8.5	24.0	11.0	27.5	14.0	29.5	16.0	23.0	11.0

14173500 CALAPOOIA RIVER AT ALBANY, OR

LOCATION.--Lat 44°37'15", long 123°07'40", in NW¼ sec.13, T.11 S., R.4 W., Linn County, Hydrologic Unit 17090003, near right bank on downstream side of bridge on Riverside Drive at Albany, 0.6 mi (1.0 km) downstream from Oak Creek, and at mile 3.0 (4.8 km).

DRAINAGE AREA.--372 mi^2 (963 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year. Prior to October 1963, published as Calapooya River at Albany.

REVISED RECORDS.--WSP 1218: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 180.85 ft (55.123 m) above mean sea level. Prior to May 11, 1962, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records excellent. Higher flows are affected by backwater from Willamette River at times. Diurnal fluctuation caused by ponds at flour mills near Shedd. Diversions for irrigation above station.

AVERAGE DISCHARGE.--37 years, 912 ft^3/s (25.83 m^3/s), 33.29 in/yr (846 mm/yr), 660,700 acre-ft/yr (815 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 32,700 ft^3/s (926 m^3/s) Dec. 22, 1955, gage height, 22.12 ft (6.742 m); maximum gage height, 25.5 ft (7.77 m) Jan. 2, 1943, from graph based on gage readings (backwater from Willamette River); minimum discharge, 3.5 ft^3/s (0.099 m^3/s) Sept. 7, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,710 ft^3/s (76.7 m^3/s) Mar. 10, gage height, 9.84 ft (2.999 m); minimum, 8.8 ft^3/s (0.25 m^3/s) Aug. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	54	72	85	80	1280	644	223	454	87	33	69
2	35	100	63	83	75	1100	687	338	462	106	51	68
3	24	174	55	85	79	856	634	488	401	68	28	53
4	17	114	51	117	70	870	558	791	422	81	28	38
5	33	100	52	108	69	683	573	835	562	88	29	36
6	32	87	48	106	54	577	637	859	484	82	29	40
7	43	71	69	95	62	788	672	761	408	84	16	52
8	33	61	58	82	72	1610	716	654	350	72	11	36
9	36	76	55	69	63	2130	835	562	309	68	34	38
10	27	60	75	75	59	2610	701	529	279	76	31	40
11	16	54	98	87	66	1860	573	791	266	58	25	20
12	33	56	79	96	55	1560	504	772	276	62	21	15
13	38	53	74	89	52	2080	469	634	242	63	25	47
14	36	43	82	108	53	1330	488	526	223	59	18	24
15	25	41	71	202	74	970	436	484	200	58	13	20
16	27	76	67	165	62	791	405	585	192	51	12	26
17	23	154	54	149	54	669	412	734	180	46	17	35
18	15	151	65	136	60	608	369	1140	169	47	16	19
19	34	151	43	124	59	612	335	1030	158	56	19	19
20	34	140	52	120	44	641	315	811	160	62	19	58
21	29	119	70	114	56	623	295	694	153	39	15	46
22	30	106	53	106	84	589	287	608	151	43	11	55
23	24	102	53	99	206	604	279	540	141	45	23	62
24	28	95	52	94	237	781	269	551	133	30	30	68
25	20	74	43	94	259	775	292	519	121	37	30	176
26	38	75	61	88	228	647	306	469	121	50	83	153
27	148	88	70	87	251	573	287	566	113	45	59	154
28	106	65	129	83	443	821	264	608	110	44	59	104
29	79	62	126	73	---	866	244	637	107	36	54	111
30	61	72	111	66	---	788	235	566	98	45	52	133
31	55	---	96	70	---	690	---	492	---	23	59	---
TOTAL	1214	2674	2147	3155	3026	31382	13721	19797	7445	1811	950	1815
MEAN	39.2	89.1	69.3	102	108	1012	457	639	248	58.4	30.6	60.5
MAX	148	174	129	202	443	2610	835	1140	562	106	83	176
MIN	15	41	43	66	44	573	235	223	98	23	11	15
CFSM	.11	.24	.19	.27	.29	2.72	1.23	1.72	.67	.16	.08	.16
IN.	.12	.27	.21	.32	.30	3.14	1.37	1.98	.74	.18	.09	.18
AC-FT	2410	5300	4260	6260	6000	62250	27220	39270	14770	3590	1880	3600

CAL YR 1976 TOTAL 225071 MEAN 615 MAX 11100 MIN 14 CFSM 1.65 IN 22.51 AC-FT 446400
WTR YR 1977 TOTAL 89137 MEAN 244 MAX 2610 MIN 11 CFSM .66 IN 8.91 AC-FT 176800

14173500 CALAPOOIA RIVER AT ALBANY, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: January 1964 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28.5°C Aug. 16, 17, 19-21, 1967; minimum, 0.0°C sometime during period Jan. 7 to Feb. 18, 1969, Dec. 16-18, 1972, Jan. 6-12, 1974, Jan. 8-10, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 27.0°C Aug. 1; minimum, 0.0°C Jan. 8-10.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	20.5	18.5	12.0	11.5	3.0	2.5	4.0	3.5	4.0	3.0	7.5	6.5
2	19.5	18.0	12.5	12.0	2.5	2.0	4.0	3.5	4.0	3.0	6.5	6.5
3	18.0	16.5	13.0	12.0	2.5	2.0	4.0	3.5	4.0	2.5	7.0	6.0
4	17.5	15.5	12.5	12.0	2.0	2.0	4.0	3.5	4.0	3.0	7.0	6.0
5	17.0	15.0	12.0	11.5	3.0	2.0	4.0	2.5	4.0	3.5	7.5	6.0
6	17.5	15.0	12.0	11.0	3.5	2.5	2.5	1.5	5.0	4.0	7.0	6.5
7	17.5	15.5	12.0	11.0	4.0	3.0	1.5	1.0	5.0	4.0	7.5	7.0
8	18.0	16.0	12.0	11.5	4.5	4.0	1.0	0.0	5.5	4.0	7.5	7.0
9	17.0	16.0	11.5	11.0	5.0	4.0	0.5	0.0	6.0	4.5	7.0	6.5
10	17.0	16.0	11.0	11.0	4.5	4.0	0.5	0.0	7.0	5.5	6.5	6.0
11	18.0	15.5	11.0	10.5	4.5	4.0	1.5	0.5	7.5	6.5	7.5	6.0
12	17.0	15.0	10.5	9.5	4.5	4.0	3.0	1.5	9.0	7.5	8.0	7.0
13	16.0	14.5	9.5	9.0	4.5	4.0	4.5	3.0	9.0	8.0	7.0	6.0
14	15.5	14.0	10.0	9.5	4.5	4.0	4.5	3.5	8.5	7.5	6.5	6.0
15	14.5	13.5	11.0	10.0	5.0	4.5	5.5	4.5	8.5	7.0	7.5	6.0
16	15.0	13.0	12.5	11.0	5.0	4.5	5.0	5.0	9.0	7.5	8.0	6.5
17	14.0	12.5	12.0	11.5	5.0	5.0	5.5	4.5	10.0	8.5	8.0	7.0
18	14.0	11.5	12.5	11.5	5.0	4.5	6.0	5.0	9.5	8.0	8.0	7.5
19	13.0	11.0	11.5	10.5	5.0	5.0	6.5	5.5	9.5	8.0	9.0	7.5
20	12.5	10.5	10.5	10.0	5.0	5.0	5.5	5.0	9.0	8.0	8.5	7.5
21	12.0	10.0	10.0	9.5	5.0	4.5	6.0	5.0	8.5	7.5	9.5	7.5
22	11.0	10.0	9.5	8.5	4.5	4.5	5.5	4.5	8.0	7.0	10.0	8.0
23	10.5	9.5	8.5	8.0	5.0	4.0	5.0	4.0	7.5	6.5	10.0	9.5
24	10.5	10.0	8.5	8.0	4.5	4.0	4.0	3.0	6.5	6.0	10.0	8.5
25	11.5	10.0	9.0	8.0	4.5	4.0	3.5	2.5	6.0	5.5	9.5	8.5
26	12.0	10.5	8.0	6.5	5.5	4.5	3.0	2.0	6.5	5.5	10.0	9.0
27	11.0	10.5	6.5	5.5	5.5	5.5	2.5	1.5	7.5	6.5	10.0	9.0
28	11.0	10.5	5.5	4.5	5.5	5.5	2.5	1.5	7.5	7.5	9.0	8.0
29	11.0	10.5	4.5	3.5	6.0	5.5	2.0	1.0	---	---	8.5	7.5
30	11.0	10.5	4.0	3.0	5.5	5.0	1.5	1.0	---	---	9.0	7.5
31	12.0	10.5	---	---	4.5	4.0	3.0	1.5	---	---	9.0	8.0
MONTH	20.5	9.5	13.0	3.0	6.0	2.0	6.5	0.0	10.0	2.5	10.0	6.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.5	8.0	16.0	15.0	16.5	13.5	24.5	21.0	27.0	23.0	21.0	18.0
2	9.5	7.5	15.5	14.5	17.0	14.5	23.5	21.0	---	---	20.0	18.0
3	10.5	8.0	14.5	13.0	15.5	14.5	22.0	20.0	---	---	19.0	18.5
4	11.5	9.0	13.5	11.5	16.0	14.5	20.5	19.0	---	---	20.5	19.0
5	13.0	10.5	11.5	11.0	18.0	14.5	20.0	17.5	---	---	21.5	19.0
6	13.5	11.5	12.0	10.5	19.5	16.5	---	---	---	---	21.0	18.5
7	14.0	11.5	12.5	10.5	21.5	18.5	---	---	---	---	20.5	18.5
8	13.0	12.0	13.5	11.5	21.5	19.0	---	---	---	---	20.0	17.5
9	12.0	10.5	14.5	12.0	21.5	18.0	---	---	---	---	20.0	17.5
10	10.5	10.0	14.5	13.5	20.5	17.5	---	---	---	---	20.0	17.5
11	11.5	9.5	13.5	11.5	19.5	17.5	---	---	---	---	21.0	17.5
12	13.0	10.5	13.0	11.0	19.5	16.5	---	---	---	---	21.5	18.0
13	13.5	11.5	13.0	11.5	20.0	16.5	---	---	---	---	21.0	18.5
14	13.0	11.0	14.0	12.0	19.5	17.0	---	---	---	---	19.5	18.0
15	12.5	11.0	13.5	12.5	20.5	17.5	---	---	---	---	18.0	16.5
16	13.0	11.5	12.5	11.0	21.0	18.0	---	---	---	---	17.5	16.0
17	13.0	10.5	12.5	11.0	21.5	19.0	---	---	---	---	17.5	16.5
18	13.0	10.5	11.5	10.5	20.5	19.5	---	---	---	---	17.0	16.5
19	13.0	10.0	13.0	10.5	21.0	19.0	---	---	25.0	21.5	16.5	16.0
20	12.5	10.0	14.0	12.0	20.0	18.5	24.0	---	24.0	21.5	16.5	15.5
21	12.5	11.0	15.0	13.5	20.5	18.0	24.5	20.5	22.0	20.5	17.5	15.5
22	13.5	11.0	14.5	13.0	21.5	19.5	25.0	21.5	23.0	20.0	16.5	15.5
23	15.0	12.0	13.5	12.5	23.0	19.0	25.0	22.0	22.0	20.0	16.0	15.0
24	15.5	13.0	14.5	11.5	23.5	20.0	26.0	22.0	21.0	18.5	15.5	14.5
25	15.0	14.0	14.5	12.0	24.5	21.0	24.0	22.0	20.0	18.0	16.0	14.5
26	16.0	13.5	15.5	13.0	24.5	20.5	24.5	21.0	20.0	17.5	15.5	14.5
27	16.0	13.0	14.5	13.0	24.0	20.5	24.0	21.0	19.5	18.0	15.0	14.5
28	15.5	14.0	14.0	12.5	25.0	20.5	23.5	21.0	20.0	18.5	15.5	14.5
29	16.5	14.0	14.5	12.0	24.0	20.5	24.0	20.0	19.5	18.5	15.0	13.5
30	17.0	15.0	14.0	13.0	24.5	20.0	25.0	21.0	20.5	18.0	15.0	13.5
31	---	---	14.5	13.5	---	---	26.5	22.0	21.0	18.0	---	---
MONTH	17.0	7.5	16.0	10.5	25.0	13.5	26.5	17.5	27.0	17.5	21.5	13.5

14174000 WILLAMETTE RIVER AT ALBANY, OR

LOCATION.--Lat 44°38'20", long 123°06'20", in SW¼ sec.6, T.11 S., R.3 W., Linn County, Hydrologic Unit 17090003, on right bank 5 ft (1.5 m) upstream from bridge on U.S. Highway 20 (Ellsworth Street) in Albany, 0.2 mi (0.3 km) downstream from Calapooia River, and at mile 119.31 (191.97 km).

DRAINAGE AREA.--4,840 mi^2 (12,500 km^2), approximately.

PERIOD OF RECORD.--November 1878 to April 1888 (fragmentary), January to June 1892, November 1892 to September 1894, December 1894 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 694: Drainage area. WSP 904: 1939. WSP 964: 1881, 1890, 1894, 1897, 1901, 1903, 1908, 1910, 1916, 1923, 1927, 1932(M). WSP 984: 1916. WSP 1248: 1895, 1902, 1907, 1915(M), 1917(M), 1918-19, 1934(M). WSP 1318 (monthly and annual figures only): 1894, 1897, 1901-3, 1907-8, 1910, 1916, 1918-19, 1923, 1927.

GAGE.--Water-stage recorder. Datum of gage is 167.18 ft (50.956 m) above mean sea level. Prior to Sept. 27, 1906, nonrecording gage at site 0.2 mi (0.3 km) upstream at datum 5.00 ft (1.524 m) higher. Sept. 27, 1906, to Nov. 12, 1934, nonrecording gage at site 300 ft (91 m) upstream at datum 5.00 ft (1.524 m) higher. Nov. 14, 1934, to Sept. 30, 1962, at datum 5.00 ft (1.524 m) higher.

REMARKS.--Records excellent. Flow regulated by nine reservoirs above station (see elsewhere in this report). Albany power canal diverts water from South Santiam River at Lebanon and discharges into Calapooia River near mouth; small diversions for irrigation and municipal water supply.

AVERAGE DISCHARGE.--83 years (water years 1894, 1896-77), 14,510 ft^3/s (410.9 m^3/s), 40.71 in/yr (1,034 mm/yr), 10,510,000 acre-ft/yr (13.0 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 266,000 ft^3/s (7,530 m^3/s) Jan. 14, 1881, gage height, 37.8 ft (11.52 m), present datum; minimum, 1,840 ft^3/s (52.1 m^3/s) Sept. 1, 2, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 4, 1861, reached a stage of 41.0 ft (12.50 m), discharge, 340,000 ft^3/s (9,630 m^3/s), from rating curve extended above 220,000 ft^3/s (6,230 m^3/s). Flood of Feb. 4, 1890, reached a stage of 38.9 ft (11.86 m), discharge, 291,000 ft^3/s (8,240 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,000 ft^3/s (510 m^3/s) Mar. 10, gage height, 8.64 ft (2.633 m); minimum, 2,570 ft^3/s (72.8 m^3/s) Feb. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7840	9190	4960	3730	3200	9370	6220	4470	7460	4080	4220	5270
2	8200	10200	4480	3760	3200	9320	6430	4860	7280	4170	4220	5150
3	8080	10100	4540	3980	3110	8080	6290	5710	6900	4330	4230	5020
4	7980	9390	4560	4170	3130	8340	5870	7710	6660	4450	4230	4960
5	8460	8720	4620	4110	3110	7280	5730	9370	6810	4500	4390	4960
6	8600	8440	4500	4010	3110	6480	6130	9730	6810	4400	4540	4970
7	8540	8080	4340	3840	3090	6750	6620	9250	6460	4300	4540	5040
8	8560	7960	4420	3800	3020	10000	6960	8360	6180	4170	4560	5320
9	8620	7920	4620	3810	3000	13600	7730	7470	5870	4140	4530	5560
10	8620	7650	4770	3830	2940	17400	7490	6900	5510	4170	4440	5700
11	8700	7610	4450	3870	2950	14500	6770	8000	5360	4190	4400	5680
12	8660	7440	4280	3900	2910	11900	6200	8880	5220	4130	4400	5660
13	8560	7210	4170	3960	2870	13000	5830	8140	4970	4100	4420	5700
14	7610	6960	4140	4470	2860	11200	5920	7320	4890	4070	4590	5730
15	7170	6980	4100	5320	2870	9210	5820	6900	4830	4010	4650	5750
16	8160	7460	4110	5140	2800	7790	5610	7050	4650	4140	4840	5590
17	8120	7570	4010	4960	2640	6960	5590	8060	4500	4390	5070	5560
18	8120	8180	3930	4310	2600	6360	5310	11100	4400	4480	5100	5650
19	8180	8060	3800	4010	2570	6130	5090	12200	4250	4450	5140	5970
20	8200	7530	3760	3890	2630	6150	4910	11000	4260	4360	5170	6170
21	8100	7210	3770	3830	2670	6170	4800	9480	4300	4390	5250	6200
22	8480	7090	3740	3760	3050	5800	4650	8620	4200	4440	5310	6100
23	8520	7150	3760	3680	3780	5730	4540	8020	4080	4510	5250	6310
24	8640	6830	3740	3650	3980	6100	4530	8300	3950	4510	5460	6940
25	8790	6460	3710	3640	4220	6310	4610	8460	3840	4580	5780	7550
26	9500	5850	3710	3600	4110	5990	4810	8020	4130	4540	5490	7380
27	9480	5560	3940	3400	4330	5710	4880	8400	4130	4360	5090	7280
28	9050	5420	4070	3200	5070	6460	4640	8900	4010	4310	4970	7650
29	8990	5460	3990	3100	---	6940	4510	8850	3920	4280	4910	8160
30	9100	5440	3890	3100	---	6840	4420	8240	3980	4220	5090	8400
31	9190	---	3870	3100	---	6520	---	7860	---	4230	5320	---
TOTAL	262820	225120	128650	120930	89820	258390	168910	255630	153810	133400	149600	181380
MEAN	8478	7504	4150	3901	3208	8335	5630	8246	5127	4303	4826	6046
MAX	9500	10200	4960	5320	5070	17400	7730	12200	7460	4580	5780	8400
MIN	7170	5420	3710	3100	2570	5710	4420	4470	3840	4010	4220	4960
CFSM	1.75	1.55	.86	.81	.66	1.72	1.16	1.70	1.06	.89	1.00	1.25
IN.	2.02	1.73	.99	.93	.69	1.99	1.30	1.96	1.18	1.03	1.15	1.39
AC-FT	521300	446500	255200	239900	178200	512500	335000	507000	305100	264600	296700	359800

CAL YR 1976 TOTAL 4522100 MEAN 12360 MAX 80200 MIN 3710 CFSM 2.55 IN 34.76 AC-FT 8970000
WTR YR 1977 TOTAL 2128460 MEAN 5831 MAX 17400 MIN 2570 CFSM 1.21 IN 16.36 AC-FT 4222000

14178000 NORTH SANTIAM RIVER BELOW BOULDER CREEK, NEAR DETROIT, OR

LOCATION.--Lat 44°42'25", long 122°06'00", in SE¼NW¼ sec.17, T.10 S., R.6 E., Marion County, Hydrologic Unit 17090005, on right bank 0.5 mi (0.8 km) downstream from Boulder Creek, 3.0 mi (4.8 km) southeast of Detroit, and at mile 70.7 (113.8 km).

DRAINAGE AREA.--216 mi^2 (559 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1907 to October 1909, October 1928 to current year. Monthly discharge only January 1907, published in WSP 1318. Prior to October 1952, published as "at Detroit."

REVISED RECORDS.--WSP 814: Drainage area at former site. WSP 1248: 1931.

GAGE.--Water-stage recorder. Datum of gage is 1,590.07 ft (484.653 m) above mean sea level. See WSP 1738 for history of changes prior to Oct. 1, 1952.

REMARKS.--Water-discharge records excellent. No regulation or diversion above station.

AVERAGE DISCHARGE.--51 years, 1,011 ft^3/s (28.63 m^3/s), 63.56 in/yr (1,614 mm/yr), 732,500 acre-ft/yr (903 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,700 ft^3/s (756 m^3/s) Dec. 22, 1964, gage height, 13.76 ft (4.194 m), temporary backwater from debris, from rating curve extended above 6,600 ft^3/s (187 m^3/s) on basis of slope-area measurement of peak flow; minimum, 250 ft^3/s (7.08 m^3/s) Sept. 13, 1909.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,590 ft^3/s (45.0 m^3/s) May 3, gage height, 5.41 ft (1.649 m), no peak above base of 3,700 ft^3/s (105 m^3/s); minimum, 321 ft^3/s (9.09 m^3/s) Sept. 12, 13, 15-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	464	661	420	434	388	616	796	1130	990	469	366	370
2	474	581	420	444	383	547	768	1320	938	459	366	357
3	474	521	420	429	379	547	747	1500	896	454	362	366
4	464	490	415	424	370	502	782	1420	1120	454	362	383
5	459	474	415	410	370	496	896	1300	1110	444	362	374
6	454	464	415	406	370	508	1090	1160	1130	434	357	349
7	454	454	415	406	370	661	1310	1080	1110	429	353	341
8	449	449	444	401	370	964	1570	1010	1010	424	349	337
9	449	449	459	397	370	964	1420	999	913	424	349	333
10	449	439	434	406	374	803	1210	1270	848	420	349	329
11	449	439	429	410	388	720	1110	1230	803	420	353	329
12	444	434	424	415	388	733	1090	1130	768	420	353	325
13	444	434	420	444	415	676	1130	1050	740	415	349	325
14	439	454	415	429	406	623	1060	1030	720	410	349	325
15	439	540	415	429	392	588	1020	1020	692	406	349	325
16	434	553	420	429	388	567	1030	955	668	406	349	325
17	434	515	415	420	383	540	955	955	653	406	349	325
18	429	534	415	424	383	540	904	929	638	420	349	333
19	429	496	410	434	379	547	848	888	616	410	349	357
20	429	479	406	429	383	547	833	880	602	397	349	392
21	429	464	401	424	415	527	833	896	595	401	349	424
22	429	459	401	424	439	553	864	896	588	397	345	388
23	429	449	410	410	424	616	955	1010	567	392	341	401
24	464	444	406	406	415	616	1080	938	540	392	424	527
25	676	449	420	401	406	595	1280	872	540	388	415	479
26	553	439	508	401	415	581	1280	981	521	383	444	439
27	485	429	560	397	459	782	1170	981	508	383	383	410
28	464	429	496	392	700	761	1130	990	496	379	392	464
29	459	424	469	383	---	720	1120	938	496	370	434	474
30	454	424	454	383	---	684	1150	896	479	370	496	515
31	502	---	439	388	---	692	---	888	---	366	401	---
TOTAL	14304	14270	13390	12829	11322	19816	31431	32542	22295	12742	11497	11421
MEAN	461	476	432	414	404	639	1048	1050	743	411	371	381
MAX	676	661	560	444	700	964	1570	1500	1130	469	496	527
MIN	429	424	401	383	370	496	747	872	479	366	341	325
CFSM	2.13	2.20	2.00	1.92	1.87	2.96	4.85	4.86	3.44	1.90	1.72	1.76
IN.	2.46	2.46	2.31	2.21	1.95	3.41	5.41	5.60	3.84	2.19	1.98	1.97
AC-FT	28370	28300	26560	25450	22460	39310	62340	64550	44220	25270	22800	22650

CAL YR 1976 TOTAL 352978 MEAN 964 MAX 3950 MIN 401 CFSM 4.46 IN 60.79 AC-FT 700100
WTR YR 1977 TOTAL 207859 MEAN 569 MAX 1570 MIN 325 CFSM 2.63 IN 35.80 AC-FT 412300

14178000 NORTH SANTIAM RIVER BELOW BOULDER CREEK, NEAR DETROIT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: April 1951 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 19.0°C July 8, 18, 19, 1970; minimum, 0.0°C Dec. 1, 1954, Mar. 5, Feb. 16, 17, 1956, Jan. 4-11, 1974, Jan. 5, 6, 8, 9, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 17.0°C July 26, 31, Aug. 1-6, 12, 15-17; minimum, 0.0°C Jan. 5, 6, 8, 9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT				
06...	1400	454	1	1.2
NOV				
15...	1515	574	4	6.2
DEC				
22...	1300	401	2	2.2
FEB				
07...	1445	388	3	3.1
MAR				
30...	1400	700	6	11
MAY				
03...	1110	1620	4	17
09...	1200	1030	41	114
JUN				
20...	1330	623	2	3.4
AUG				
01...	1500	374	2	2.0

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.5	9.0	8.0	7.5	3.5	2.5	3.0	1.5	4.0	3.0	3.0	2.0
2	10.5	9.0	9.0	7.5	3.5	2.5	3.5	2.5	3.0	2.0	4.0	2.5
3	9.0	7.5	8.5	6.5	4.0	2.5	3.5	2.5	3.0	2.0	4.5	2.5
4	8.5	6.5	7.5	6.5	4.0	3.0	3.5	2.5	3.5	2.0	5.5	3.5
5	9.0	6.5	7.0	6.0	4.5	3.5	2.5	0.0	4.0	2.5	5.5	3.5
6	9.5	7.0	7.5	6.0	4.5	3.5	1.0	0.0	4.5	3.5	5.0	3.0
7	10.0	7.5	7.5	5.5	4.5	4.0	1.0	0.5	4.0	2.5	4.5	3.5
8	10.0	8.0	7.5	6.5	4.5	3.5	1.0	0.0	5.0	3.5	4.5	3.5
9	9.5	7.0	7.0	6.0	4.5	3.0	1.0	0.0	5.0	3.5	3.5	2.5
10	9.0	7.5	6.5	5.0	4.0	3.0	3.0	1.0	5.5	4.0	5.0	2.5
11	10.0	8.0	6.5	5.5	4.0	3.0	3.5	3.0	5.5	4.0	5.0	2.5
12	8.5	7.0	6.0	4.5	3.5	2.5	4.0	3.0	6.0	4.5	4.0	3.0
13	9.0	6.5	5.5	4.0	3.5	2.5	3.5	3.0	6.5	5.0	4.5	2.5
14	8.5	6.5	7.0	5.0	4.0	2.5	3.5	3.0	5.0	3.5	4.5	2.5
15	8.0	6.5	---	---	4.5	3.5	4.5	3.0	5.0	3.5	5.0	2.5
16	7.5	6.0	---	---	4.5	3.5	4.0	3.0	5.5	3.5	5.0	2.5
17	7.0	5.0	---	---	4.0	3.0	4.0	3.0	6.0	4.5	4.5	3.0
18	6.5	4.5	---	---	5.0	3.5	4.5	3.0	5.0	3.5	4.5	3.0
19	6.5	4.0	6.5	5.0	3.0	2.0	4.0	3.0	5.0	3.0	5.5	4.0
20	6.5	4.5	5.5	3.5	2.5	2.0	4.0	2.5	5.5	3.5	5.0	3.5
21	7.0	4.5	6.5	4.5	3.0	2.0	4.5	3.0	5.0	3.5	6.5	3.0
22	6.5	5.0	6.5	5.5	3.5	2.0	3.5	2.5	4.0	2.5	6.5	3.0
23	7.0	6.0	5.5	4.0	4.0	3.5	2.5	1.0	3.5	2.5	5.5	4.0
24	6.5	5.5	6.0	3.5	4.0	3.0	2.0	0.5	4.0	2.5	5.5	3.5
25	7.0	6.0	6.0	5.0	4.0	3.5	2.0	1.0	4.0	3.0	6.0	3.5
26	7.0	6.0	4.5	2.5	4.5	3.5	2.0	1.0	4.5	2.5	5.0	4.0
27	6.5	5.0	2.5	1.5	4.5	3.5	2.0	1.0	5.5	3.5	5.0	3.0
28	7.0	4.5	3.0	1.5	3.5	2.5	2.0	1.0	5.0	2.5	4.5	2.5
29	7.5	6.5	3.5	2.0	4.5	3.0	2.0	1.0	---	---	5.5	3.0
30	7.5	6.0	3.5	2.5	3.5	2.5	3.0	1.0	---	---	6.5	3.5
31	8.0	6.5	---	---	2.5	1.5	4.0	3.0	---	---	4.5	3.0
MONTH	11.5	4.0	9.0	1.5	5.0	1.5	4.5	0.0	6.5	2.0	6.5	2.0

14178000 NORTH SANTIAM RIVER BELOW BOULDER CREEK, NEAR DETROIT, OR--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.0	3.5	7.5	6.5	10.0	8.0	15.5	11.5	17.0	12.0	13.5	8.5
2	7.0	4.0	8.0	6.5	11.0	6.0	15.5	9.5	17.0	12.0	13.0	10.0
3	7.5	3.5	7.0	5.0	9.5	7.5	12.5	9.5	17.0	12.0	12.5	10.5
4	8.5	3.5	6.0	3.5	10.0	8.0	12.5	9.5	17.0	11.5	13.5	11.0
5	8.5	4.0	7.5	3.5	14.0	8.0	11.0	8.5	17.0	12.0	14.5	11.5
6	8.0	4.0	7.5	4.5	14.0	9.0	14.5	8.5	17.0	12.0	14.5	11.5
7	8.5	4.0	7.5	4.5	14.0	9.5	15.5	9.5	16.5	12.0	13.5	10.0
8	6.0	4.5	9.5	5.5	13.5	9.5	15.5	10.5	16.5	12.0	13.0	9.5
9	6.0	4.0	8.5	5.5	13.0	7.5	13.5	11.0	16.0	11.0	12.5	8.0
10	7.0	3.5	7.5	6.0	13.0	8.0	15.0	10.0	16.5	11.5	13.0	9.0
11	8.5	5.0	8.0	5.0	13.0	8.5	16.5	9.5	16.5	11.0	13.0	9.5
12	8.0	4.0	8.0	5.0	14.0	8.5	13.5	11.5	17.0	12.0	13.0	8.5
13	6.5	4.5	9.0	6.0	14.5	9.0	15.5	9.0	16.5	11.5	13.0	9.0
14	7.0	3.5	8.5	6.5	14.5	8.0	16.0	9.0	16.0	12.0	13.0	10.5
15	6.5	5.0	7.5	5.5	14.5	8.5	16.0	10.5	17.0	12.5	12.0	9.5
16	6.5	4.5	8.0	5.5	14.5	7.5	16.0	10.0	17.0	12.5	11.0	9.5
17	7.5	3.5	7.0	5.5	14.5	8.5	14.0	10.5	17.0	11.5	11.0	8.5
18	7.0	3.5	9.0	5.5	15.0	9.5	12.5	11.0	16.5	12.0	10.5	9.0
19	8.0	3.0	11.5	6.5	15.0	10.0	14.5	9.5	15.5	12.5	10.5	9.5
20	8.0	3.5	9.5	6.5	12.5	9.5	16.5	10.5	16.5	12.0	10.5	9.0
21	8.0	5.0	10.5	7.0	14.5	9.0	16.5	10.5	16.5	13.0	11.0	8.5
22	9.0	5.0	9.0	6.5	16.0	10.0	16.5	11.0	16.0	12.0	11.0	8.0
23	8.5	5.5	8.0	6.5	15.5	9.5	15.5	11.0	14.0	10.5	9.5	8.0
24	9.5	5.0	10.0	6.5	16.0	9.0	15.5	11.0	13.0	11.5	10.5	8.0
25	8.0	6.0	9.0	6.0	16.5	10.0	15.0	12.0	11.5	9.5	10.5	8.0
26	9.0	5.5	8.5	6.5	16.0	10.0	17.0	11.5	12.0	10.0	10.0	6.5
27	9.5	4.5	7.5	5.0	15.5	10.0	16.5	11.5	11.5	10.0	9.0	8.0
28	8.5	6.0	9.0	5.5	16.5	9.5	14.5	11.5	12.0	10.0	9.5	8.5
29	9.5	6.5	11.0	6.0	16.0	10.5	15.5	10.5	12.0	11.0	8.5	7.5
30	9.0	6.5	9.5	6.5	16.5	10.0	16.5	10.5	13.5	10.5	9.0	7.0
31	---	---	11.0	7.5	---	---	17.0	11.5	12.5	9.0	---	---
MONTH	9.5	3.0	11.5	3.5	16.5	6.0	17.0	8.5	17.0	9.0	14.5	6.5

14179000 BREITENBUSH RIVER ABOVE CANYON CREEK, NEAR DETROIT, OR

LOCATION.--Lat 44°45'10", long 122°07'40", in SE¼NE¼ sec.36, T.9 S., R.5 E., Marion County, Hydrologic Unit 17090005, in Willamette National Forest, on left bank 600 ft (183 m) upstream from Canyon Creek, 1.5 mi (2.4 km) northeast of Detroit, and at mile 2.0 (3.2 km).

DRAINAGE AREA.--106 mi^2 (275 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1932 to current year. Monthly discharge only June 1932, published in WSP 1318. Prior to October 1952, published as "above French Creek, near Detroit."

REVISED RECORDS.--WSP 1044: 1943(M). WSP 1248: 1947.

GAGE.--Water-stage recorder. Datum of gage is 1,573.95 ft (479.740 m) above mean sea level. Prior to Oct. 1, 1952, at site 0.2 mi (0.3 km) downstream at datum 13.46 ft (4.103 m) lower.

REMARKS.--Water-discharge records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--45 years, 578 ft^3/s (16.37 m^3/s), 74.05 in/yr (1,881 mm/yr), 418,800 acre-ft/yr (516 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft^3/s (479 m^3/s) Dec. 22, 1964, gage height, 14.55 ft (4.435 m); minimum, 87 ft^3/s (2.46 m^3/s) Sept. 2, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,230 ft^3/s (34.8 m^3/s) Apr. 8, gage height, 5.01 ft (1.524 m), no peak above base of 4,000 ft^3/s (113 m^3/s); minimum, 98 ft^3/s (2.78 m^3/s) Aug. 17-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	381	126	169	144	509	504	566	539	206	139	181
2	126	273	126	169	139	404	489	723	489	199	137	161
3	129	215	126	158	137	386	464	979	450	193	137	161
4	124	178	126	155	134	343	519	916	815	196	134	158
5	117	158	126	144	134	318	672	775	808	190	134	155
6	112	144	124	144	134	364	878	660	815	181	134	144
7	109	137	126	150	131	642	1060	583	761	178	134	134
8	109	131	144	137	129	979	1160	529	648	175	131	126
9	109	126	155	139	129	849	916	514	534	175	129	124
10	107	124	147	139	134	606	723	679	469	172	126	117
11	109	124	139	137	137	499	624	648	436	169	126	114
12	107	120	142	155	139	499	595	572	408	166	124	109
13	105	120	139	212	166	445	624	524	390	163	124	109
14	105	140	139	212	163	399	572	509	377	163	124	107
15	105	212	142	209	152	351	529	494	364	158	124	107
16	103	256	142	222	147	322	529	469	347	155	121	107
17	103	199	140	212	144	299	484	464	334	155	119	109
18	100	235	142	212	142	292	440	455	334	161	119	114
19	100	196	140	215	137	334	404	426	318	161	121	126
20	100	172	140	206	139	351	386	426	310	155	121	178
21	100	158	140	196	155	322	381	455	310	152	121	222
22	100	152	140	187	184	351	404	469	318	150	119	190
23	100	144	142	175	175	436	479	469	295	150	119	219
24	112	142	144	169	166	399	601	417	273	150	172	422
25	249	142	142	163	166	368	742	390	277	150	184	390
26	178	134	266	158	190	347	679	464	259	147	206	307
27	139	131	445	152	326	630	578	450	245	144	161	245
28	126	129	284	150	742	539	561	455	235	144	184	263
29	121	129	232	144	---	464	572	431	232	142	228	266
30	121	129	203	142	---	431	595	408	215	142	347	338
31	181	---	184	147	---	431	---	422	---	139	222	---
TOTAL	3727	5031	5053	5279	4915	13909	18164	16741	12605	5081	4621	5503
MEAN	120	168	163	170	176	449	605	540	420	164	149	183
MAX	249	381	445	222	742	979	1160	979	815	206	347	422
MIN	100	120	124	137	129	292	381	390	215	139	119	107
CFSM	1.13	1.59	1.54	1.60	1.66	4.24	5.71	5.09	3.96	1.55	1.41	1.73
IN.	1.31	1.77	1.77	1.85	1.72	4.88	6.37	5.88	4.42	1.78	1.62	1.93
AC-FT	7390	9980	10020	10470	9750	27590	36030	33210	25000	10080	9170	10920

CAL YR 1976 TOTAL 181892 MEAN 497 MAX 3230 MIN 100 CFSM 4.69 IN 63.83 AC-FT 360800
WTR YR 1977 TOTAL 100629 MEAN 276 MAX 1160 MIN 100 CFSM 2.60 IN 35.31 AC-FT 199600

14179000 BREITENBUSH RIVER ABOVE CANYON CREEK, NEAR DETROIT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: December 1950 to July 1961, January 1962 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 18.0°C July 27, 1973; minimum, 0.0°C on several days in December 1972 and January 1973, Jan. 5-10, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 17.5°C Aug. 6; minimum, 0.0°C Jan. 5-10.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
OCT				
06...	1640	137	1	.37
NOV				
15...	1120	219	1	.59
DEC				
22...	1415	140	1	.38
FEB				
07...	1130	131	8	2.8
MAR				
30...	1530	431	6	7.0
MAY				
03...	1010	1040	4	11
09...	1130	474	8	10
JUN				
20...	1140	307	6	5.0
AUG				
01...	1240	121	2	.65

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	8.0	7.5	3.0	2.5	3.0	2.0	4.0	3.0	3.5	2.0
2	---	---	8.5	8.0	3.0	2.5	3.5	1.5	3.0	2.0	4.0	3.5
3	---	---	8.0	7.0	3.5	2.5	3.5	2.0	2.5	1.5	4.5	3.0
4	---	---	7.5	6.5	4.0	3.5	3.5	2.5	3.0	2.0	5.0	4.0
5	---	---	7.5	6.5	4.5	4.0	3.0	0.0	3.5	2.0	5.5	4.0
6	---	---	7.5	7.0	4.5	3.5	0.0	0.0	4.0	3.5	5.5	4.5
7	10.0	8.0	7.5	6.0	5.0	4.0	0.5	0.0	3.5	2.5	5.0	4.0
8	10.0	8.5	7.5	7.0	5.0	4.5	0.5	0.0	3.5	3.0	5.0	4.5
9	9.5	7.5	7.5	6.5	4.5	3.5	0.0	0.0	4.5	3.5	4.5	3.5
10	9.0	8.5	7.0	5.5	4.5	4.0	2.5	0.0	5.5	4.0	5.0	3.5
11	10.0	8.5	6.5	6.0	4.0	3.5	3.0	2.5	5.5	4.5	5.5	3.5
12	9.0	7.0	6.0	5.0	3.5	2.5	3.5	3.0	6.5	5.5	4.5	4.0
13	8.5	7.0	5.5	4.5	3.5	3.0	3.5	3.0	6.5	5.5	5.0	3.5
14	8.5	7.0	7.0	5.5	3.5	2.5	3.5	3.5	5.0	3.5	5.0	3.5
15	8.0	6.5	7.5	6.5	4.0	3.5	4.0	3.5	5.0	3.5	5.0	3.0
16	7.5	6.0	8.0	7.0	4.0	3.5	4.5	3.5	5.5	4.0	5.0	3.5
17	7.0	5.5	8.0	7.0	4.0	3.0	4.0	3.5	6.0	5.0	5.0	3.5
18	7.0	5.5	7.5	7.0	4.5	3.5	4.5	3.5	5.0	3.5	5.0	3.5
19	6.5	5.0	7.0	6.0	3.5	2.5	4.5	3.5	5.0	3.5	5.5	4.5
20	6.0	5.0	6.0	5.0	2.5	2.0	4.0	3.0	5.0	4.5	5.5	4.5
21	6.5	5.0	6.5	5.5	2.5	1.5	4.0	3.5	5.0	4.5	6.5	4.5
22	6.5	5.5	6.5	5.5	3.0	2.5	3.5	3.0	4.5	4.0	6.5	4.5
23	7.5	6.5	5.5	4.5	4.0	3.0	3.0	1.5	4.0	3.5	6.0	5.0
24	7.0	6.0	5.5	4.5	4.0	3.5	2.0	1.5	4.0	3.0	6.5	4.5
25	7.5	6.5	6.0	5.5	4.5	3.5	2.0	1.5	4.0	3.0	6.5	4.5
26	7.5	6.5	5.5	3.0	5.0	4.0	2.0	1.0	4.5	3.0	5.5	5.0
27	6.5	5.5	3.0	2.0	5.0	4.0	1.5	0.5	5.0	4.0	5.5	4.0
28	7.0	5.5	2.5	1.5	4.0	3.5	1.5	1.0	4.5	2.5	5.0	3.0
29	7.5	7.0	3.0	2.0	5.0	3.5	1.5	0.5	---	---	6.0	4.0
30	8.0	7.0	3.0	2.5	4.0	3.0	2.5	1.0	---	---	6.5	4.0
31	8.5	7.5	---	---	3.0	2.0	3.5	2.5	---	---	5.0	4.0
MONTH	10.0	5.0	8.5	1.5	5.0	1.5	4.5	0.0	6.5	1.5	6.5	2.0

14179000 BREITENBUSH RIVER ABOVE CANYON CREEK, NEAR DETROIT, OR--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.0	4.5	7.5	7.0	9.5	8.0	14.5	11.5	16.5	13.0	12.0	9.0
2	7.0	5.0	8.0	6.5	10.5	6.5	14.5	10.5	17.0	13.5	12.0	10.5
3	7.5	4.5	7.0	5.0	8.5	7.5	13.0	10.0	17.0	13.0	12.0	11.5
4	8.0	4.5	6.5	5.0	9.0	7.5	12.0	9.5	16.5	13.0	13.0	11.5
5	8.0	4.5	7.0	5.0	12.5	7.0	11.0	9.0	17.0	13.0	14.0	11.5
6	8.0	5.0	7.5	5.5	12.5	8.0	14.0	9.0	17.5	13.5	14.0	11.5
7	8.0	5.0	7.5	5.0	13.5	9.0	14.5	9.5	15.5	12.5	13.0	10.5
8	6.5	5.5	10.0	6.5	12.5	8.5	15.0	11.0	16.5	13.0	12.5	9.5
9	6.5	4.5	9.0	6.0	12.5	7.5	14.0	11.0	16.0	12.0	12.0	9.0
10	7.0	5.0	7.5	6.5	12.5	8.0	14.5	10.5	16.5	13.0	12.5	9.5
11	8.0	5.5	8.0	6.0	12.5	8.5	15.5	11.0	17.0	13.5	12.5	10.0
12	8.0	4.5	9.0	5.5	13.0	8.5	14.5	11.5	17.0	13.5	12.5	10.0
13	7.0	6.0	9.5	6.5	13.5	8.5	14.5	10.0	17.0	13.5	12.5	10.0
14	7.0	4.5	8.0	6.5	13.5	8.5	15.0	11.0	16.5	14.0	13.0	11.0
15	7.0	5.5	7.5	6.0	13.5	8.5	15.5	11.0	17.0	13.5	12.0	10.5
16	7.0	5.5	8.0	6.0	13.5	8.0	15.0	11.5	17.0	14.0	11.0	10.0
17	7.5	4.0	7.5	6.0	13.5	9.0	14.0	12.0	17.5	14.0	10.5	9.5
18	7.0	4.0	9.5	6.5	14.0	10.0	13.0	11.5	17.0	14.5	10.5	10.0
19	7.5	4.0	10.5	6.5	14.0	9.5	14.5	10.5	15.5	14.0	10.5	10.0
20	8.0	4.5	9.5	6.5	12.0	9.0	16.0	11.5	16.5	13.5	10.5	9.5
21	8.0	5.5	10.5	7.5	12.5	9.0	16.0	12.0	17.0	14.5	10.0	9.0
22	9.0	5.5	9.0	6.5	14.5	9.5	16.0	12.0	16.5	13.5	10.5	8.5
23	8.5	6.0	8.0	6.5	14.5	9.0	15.0	12.5	14.5	12.5	9.5	8.5
24	9.5	6.0	10.0	6.5	15.0	9.5	15.5	12.5	14.0	12.5	9.5	8.5
25	8.5	6.5	9.0	6.0	15.5	10.5	15.5	12.5	12.5	11.5	10.0	8.5
26	9.0	6.0	8.5	7.0	15.0	10.0	16.5	12.5	11.5	11.0	9.0	7.0
27	9.5	5.5	7.5	6.0	14.5	10.0	16.5	13.0	11.5	10.5	9.0	8.0
28	9.0	6.5	9.0	6.0	15.0	10.0	15.0	13.0	12.0	11.0	9.5	8.5
29	9.5	7.0	10.5	6.0	15.0	10.5	15.5	11.5	12.0	11.0	8.5	8.0
30	9.0	7.0	9.0	7.0	15.0	10.0	16.0	11.5	12.5	10.5	9.0	7.5
31	---	---	11.0	7.5	---	---	16.5	12.5	12.0	9.5	---	---
MONTH	9.5	4.0	11.0	5.0	15.5	6.5	16.5	9.0	17.5	9.5	14.0	7.0

14180500 DETROIT LAKE NEAR DETROIT, OR

LOCATION.--Lat 44°43'20", long 122°14'55", in SW¼NW¼ sec.7, T.10 S., R.5 E., Marion County, Hydrologic Unit 17090005, in control house near right abutment of Detroit Dam on North Santiam River, 4.9 mi (7.9 km) west of Detroit, and at mile 60.9 (98.0 km).

DRAINAGE AREA.--437 mi^2 (1,132 km^2)

PERIOD OF RECORD.--January 1953 to current year. Prior to October 1971, published as Detroit Reservoir near Detroit.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by concrete, gravity-type dam with six 42-ft (12.8 m) by 28-ft ((8.5 m) control gates. Length of dam is 1,580 ft (481.6 m), builc by Corps of Engineers. Storage began in January 1953. Total capacity is 455,100 acre-ft (561 hm^3) and usable capacity is 340,100 acre-ft (419 hm^3) between elevations 1,425.0 ft (434.34 m), proposed lower limit of operation, and 1,569.0 ft (478.23 m), top of spillway gates. Reservoir used for flood control, power development, irrigation, improvement of navigation, pollution abatement, and other purposes. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 457,900 acre-ft (565 hm^3) July 13, 1972, elevation, 1,569.79 ft (478.472 m); minimum, 115,500 acre-ft (142 hm^3) Jan. 30, 1969, elevation, 1,425.37 ft (434.453 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 451,800 acre-ft (557 hm^3) June 22, elevation, 1,568.05 ft (477.942 m); minimum, 133,500 acre-ft (165 hm^3) Feb. 20, elevation, 1,437.38 ft (438.113 m).

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,425	115,000	1,480	210,900	1,530	331,500
1,430	122,200	1,490	232,000	1,540	360,200
1,440	137,700	1,500	234,600	1,550	390,900
1,450	154,400	1,510	278,700	1,560	424,000
1,460	172,200	1,520	304,400	1,570	458,600
1,470	191,100				

ELEVATION, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1526.41	1492.80	1451.37	1443.65	1438.71	1444.11	1487.60	1537.27	1565.63	1566.51	1559.20	1544.48
2	1525.49	1491.22	1450.99	1443.43	1438.22	1445.48	1489.10	1539.10	1565.79	1566.25	1558.93	1543.87
3	1524.55	1490.25	1450.58	1443.15	1438.29	1446.80	1490.43	1541.56	1565.94	1566.11	1558.65	1543.63
4	1523.56	1489.58	1450.32	1443.03	1438.20	1447.62	1491.94	1543.91	1566.63	1565.99	1558.37	1543.38
5	1522.54	1488.35	1449.93	1442.63	1438.09	1448.52	1493.94	1545.74	1566.81	1565.84	1558.08	1542.74
6	1521.54	1487.08	1449.51	1442.21	1438.03	1449.57	1496.63	1547.25	1567.02	1565.69	1557.80	1542.07
7	1520.46	1485.74	1449.09	1441.84	1437.93	1451.91	1499.78	1548.61	1566.98	1565.50	1557.51	1541.74
8	1519.41	1484.50	1448.84	1441.41	1437.83	1455.76	1503.31	1549.75	1567.14	1565.32	1557.23	1541.03
9	1518.32	1483.10	1448.89	1441.10	1437.77	1459.10	1505.99	1550.79	1567.32	1565.15	1556.93	1540.29
10	1517.28	1481.68	1448.54	1440.66	1437.68	1461.24	1508.03	1552.32	1567.3[illegible]	1564.98	1556.63	1539.85
11	1516.20	1480.24	1448.17	1440.44	1437.68	1462.77	1509.70	1553.71	1567.35	1564.78	1556.33	1539.25
12	1515.09	1478.75	1447.76	1440.18	1437.68	1464.46	1511.27	1554.86	1567.33	1564.59	1556.02	1538.23
13	1513.98	1476.74	1447.38	1440.20	1437.78	1465.66	1513.00	1555.86	1567.45	1564.39	1555.70	1537.16
14	1512.86	1474.76	1447.16	1440.17	1437.84	1466.88	1514.59	1556.86	1567.54	1564.19	1555.16	1536.49
15	1511.70	1473.03	1446.75	1440.08	1437.85	1467.84	1516.02	1557.83	1567.55	1563.98	1554.26	1535.44
16	1510.51	1471.37	1446.36	1439.99	1437.76	1468.59	1517.48	1558.73	1567.69	1563.77	1553.35	1534.36
17	1509.38	1469.53	1445.94	1439.86	1437.77	1469.41	1518.70	1559.57	1567.74	1563.56	1552.72	1533.78
18	1508.17	1467.74	1445.51	1439.80	1437.69	1470.07	1519.90	1560.46	1567.79	1563.38	1551.79	1533.04
19	1506.93	1465.79	1445.41	1439.74	1437.60	1470.88	1520.89	1561.22	1567.79	1563.17	1550.88	1532.04
20	1505.69	1463.70	1444.95	1439.60	1437.57	1471.70	1521.82	1561.72	1567.85	1562.94	1550.43	1531.16
21	1504.43	1461.47	1444.59	1439.46	1437.65	1472.54	1522.75	1562.27	1567.87	1562.73	1549.90	1530.79
22	1503.17	1459.17	1444.19	1439.33	1437.95	1473.42	1523.73	1562.93	1567.88	1562.23	1548.92	1529.92
23	1501.89	1456.77	1443.84	1439.12	1438.08	1474.72	1524.97	1563.57	1567.84	1561.57	1547.96	1529.11
24	1500.77	1455.23	1443.44	1438.90	1438.24	1475.97	1526.49	1564.07	1567.76	1561.23	1547.52	1528.65
25	1500.10	1454.66	1443.18	1438.76	1438.37	1477.08	1528.38	1564.48	1567.68	1560.99	1546.95	1528.05
26	1499.12	1454.07	1443.38	1438.76	1438.53	1478.07	1530.12	1565.08	1567.56	1560.75	1546.40	1527.29
27	1497.97	1453.42	1443.85	1438.77	1439.31	1480.07	1531.53	1565.37	1567.45	1560.50	1546.20	1526.06
28	1496.78	1452.80	1443.95	1438.78	1442.23	1481.86	1532.89	1565.46	1567.44	1560.25	1546.05	1524.68
29	1495.51	1452.07	1444.20	1438.76	---	1483.50	1534.28	1565.47	1567.36	1560.00	1545.56	1523.37
30	1494.27	1451.76	1444.06	1438.73	---	1484.70	1535.78	1565.41	1567.04	1559.73	1545.25	1522.14
31	1493.37	---	1443.88	1438.71	---	1485.96	---	1565.32	---	1559.47	1545.09	---
MEAN	1510.24	1471.58	1446.65	1440.36	1438.15	1466.33	1514.03	1556.34	1567.28	1563.40	1552.64	1534.80
MAX	1526.41	1492.80	1451.37	1443.65	1442.23	1485.96	1535.78	1565.47	1567.88	1566.51	1559.20	1544.48
MIN	1493.37	1451.76	1443.18	1438.71	1437.57	1444.11	1487.60	1537.27	1565.63	1559.47	1545.09	1522.14
(†)	239,400	157,400	144,000	135,600	141,300	223,300	347,900	442,300	448,300	422,200	375,600	310,000
(‡)	-85,700	-82,000	-13,400	-8,400	+5,700	+82,000	+124,600	+94,400	+6,000	-26,100	-46,600	-65,600

CAL YR 1976 MEAN 1515.86 MAX 1567.58 MIN 1443.18 AC-FT‡ -26,600
WTR YR 1977 MEAN 1505.52 MAX 1567.88 MIN 1437.57 AC-FT‡ -15,100

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14181500 NORTH SANTIAM RIVER AT NIAGARA, OR

LOCATION.--Lat 44°45'10", long 122°17'50", in NE¼NE¼ sec.34, T.9 S., R.4 E., Marion County, Hydrologic Unit 17090005, on left bank 0.1 mi (0.2 km) downstream from Little Sardine Creek, 0.8 mi (1.3 km) downstream from Big Cliff Dam, 2.1 mi (3.4 km) east of Niagara, and at mile 57.3 (92.2 km).

DRAINAGE AREA.--453 mi^2 (1,173 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1908 to January 1920, October 1921 to March 1922, October 1938 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as North Fork of Santiam River near Niagara prior to October 1913, and as "above Mayflower Creek, near Detroit" October 1938 to September 1952.

REVISED RECORDS.--WSP 1288: 1914-18, 1920. WSP 1718: 1953-54.

GAGE.--Water-stage recorder. Datum of gage is 1,093.78 ft (333.384 m) above mean sea level (Bureau of Public Roads bench mark). See WSP 1738 for history of changes prior to Oct. 1, 1952.

REMARKS.--Water-discharge records excellent. Flow regulated since 1953 by Detroit Lake (see station 14180500) and Big Cliff Reservoir, usable capacity for reregulating purposes, 2,930 acre-ft (3.61 hm^3). No diversion above station.

AVERAGE DISCHARGE.--49 years (water years 1910-19, 1939-77), 2,350 ft^3/s (66.55 m^3/s), 70.45 in/yr (1,789 mm/yr), 1,703,000 acre-ft/yr (2.10 km^3/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 63,200 ft^3/s (1,790 m^3/s) Nov. 22, 1909, gage height, 16.4 ft (5.00 m), from floodmark, site and datum then in use, from rating curve extended above 35,000 ft^3/s (991 m^3/s); minimum, 19 ft^3/s (0.54 m^3/s) Aug. 21, 1963; minimum daily, 395 ft^3/s (11.2 m^3/s) Mar. 25, 26, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,560 ft^3/s (101 m^3/s) Nov. 17, gage height, 4.88 ft (1.487 m); minimum, 331 ft^3/s (9.37 m^3/s) Mar. 23; minimum daily, 395 ft^3/s (11.2 m^3/s) Mar. 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2490	2220	990	938	678	541	456	491	1760	1740	999	1740
2	2020	2970	878	946	678	547	467	485	1740	1240	999	1600
3	2000	2090	895	946	656	541	444	491	1720	946	990	999
4	2040	1650	878	946	656	534	417	485	1760	999	999	955
5	1970	2060	929	946	663	534	428	473	2020	1040	1030	1710
6	2060	2150	887	938	656	534	462	456	2460	999	1020	1640
7	2100	2090	938	929	663	547	479	439	2540	972	1020	1050
8	2060	2240	938	929	685	515	439	473	1970	972	1020	1700
9	2070	2240	946	929	678	503	503	491	1560	972	1020	1620
10	2020	2180	929	929	678	528	485	497	1700	981	1020	1210
11	2040	2340	929	929	670	522	473	573	1530	981	1020	1440
12	2100	2110	929	955	670	522	456	614	1560	1030	1020	2110
13	2100	2760	946	946	670	522	467	635	1230	990	1010	2130
14	2010	2760	938	938	670	522	462	614	1040	981	1440	1500
15	2100	2750	938	938	663	515	467	627	1200	972	2100	2050
16	2110	2990	938	938	670	515	473	649	1030	990	2070	2240
17	2070	2850	929	938	670	515	473	790	1040	999	1510	1450
18	2110	2750	938	938	663	663	467	790	1020	999	2090	1440
19	2160	2930	920	955	663	509	450	790	1040	999	2060	2100
20	2010	2870	920	929	663	509	456	1080	1030	990	1190	2130
21	2190	2900	929	929	670	509	462	1060	1030	999	1460	1570
22	2180	2940	920	929	670	491	462	1070	1070	1510	2040	2090
23	2150	2960	946	929	670	444	473	1060	1070	1780	2100	2230
24	2110	2090	946	929	663	411	473	1050	1040	1200	1510	2260
25	2150	1280	929	790	663	395	479	1050	1040	1010	1770	2280
26	2160	1220	938	685	663	395	473	1270	1060	981	1630	2230
27	2160	1180	955	685	678	456	473	1710	1040	1020	1010	2690
28	2130	1220	999	670	593	566	473	2010	1010	1010	1050	3030
29	2160	1300	946	642	---	515	473	2100	972	972	1560	3000
30	2140	1040	929	649	---	503	473	2040	1460	1010	1660	3110
31	2070	---	929	649	---	433	---	2100	---	999	1040	---
TOTAL	65240	67130	28899	27266	18633	15756	13938	29463	41742	33263	42457	57304
MEAN	2105	2238	932	880	665	508	465	950	1391	1074	1370	1910
MAX	2490	2990	999	955	685	663	503	2100	2540	1780	2100	3110
MIN	1970	1040	878	642	593	395	417	439	972	946	990	955
AC-FT	129400	133200	57320	54080	36960	31250	27650	56460	82800	66020	84210	113700
MEAN†	711	860	714	743	769	1,841	2,558	2,454	1,492	649	611	808
CFSM†	1.57	1.90	1.58	1.64	1.70	4.06	5.65	5.42	3.29	1.43	1.35	1.78
IN.†	1.81	2.12	1.82	1.89	1.77	4.69	6.30	6.25	3.68	1.65	1.56	1.99
AC-FT†	43,700	51,200	43,900	45,700	42,700	113,200	152,200	150,900	88,800	39,900	37,600	48,100

CAL YR 1976 TOTAL 739,299 MEAN 2,202 MAX 8,370 MIN 878 AC-FT 1,466,000 MEAN† 2,700 CFSM† 5.96 IN.† 80.97 AC-FT† 1,955,700
WTR YR 1977 TOTAL 440,111 MEAN 1,206 MAX 3,110 MIN 395 AC-FT 873,000 MEAN† 1,185 CFSM† 2.62 IN.† 35.52 AC-FT† 857,900

† Adjusted for change in contents of Detroit Lake.

14181500 NORTH SANTIAM RIVER AT NIAGARA, OR—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: January 1953 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 16.5°C July 28, 29, 1958; minimum, 1.5°C on several days in 1957, 1971, and Jan. 10-13, 1974.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 14.0°C Oct. 18; minimum, 4.0°C many days in January and February.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.0	12.5	12.5	12.5	8.5	8.5	6.0	5.5	4.5	4.0	4.5	4.5
2	13.0	12.5	13.0	12.5	8.5	8.5	6.0	5.5	4.5	4.0	4.5	4.5
3	13.0	13.0	13.0	12.5	8.5	8.0	6.0	5.5	4.0	4.0	4.5	4.5
4	13.0	12.5	13.0	12.5	8.5	8.5	6.0	6.0	4.5	4.0	5.0	4.5
5	13.0	13.0	12.5	12.5	8.5	8.0	5.5	5.5	4.0	4.0	5.0	4.5
6	13.0	13.0	12.5	12.0	8.0	8.0	5.5	5.0	4.5	4.0	5.0	4.5
7	13.0	13.0	12.5	12.5	8.0	8.0	5.0	5.0	4.5	4.0	5.0	5.0
8	13.5	13.0	12.5	12.0	8.0	8.0	5.0	5.0	4.5	4.0	5.0	5.0
9	13.5	13.0	12.0	12.0	8.0	8.0	5.0	4.5	4.5	4.5	5.0	5.0
10	13.5	13.0	12.0	12.0	8.0	7.0	5.0	4.5	4.5	4.5	5.0	4.5
11	13.5	13.5	12.0	12.0	7.5	7.0	5.0	5.0	4.5	4.5	5.0	4.5
12	13.5	13.0	12.0	12.0	7.5	7.0	5.0	5.0	4.5	4.5	5.0	4.5
13	13.5	13.0	12.0	11.5	7.5	7.0	5.0	5.0	4.5	4.0	5.0	5.0
14	13.5	13.0	11.5	11.5	7.5	7.0	5.0	5.0	4.5	4.5	5.0	5.0
15	13.5	13.0	11.5	11.0	7.5	7.0	5.0	5.0	4.5	4.5	5.0	4.5
16	13.5	13.0	11.5	11.0	7.5	7.0	5.0	5.0	4.5	4.0	5.0	5.0
17	13.5	13.0	11.5	11.5	7.0	7.0	5.0	5.0	4.5	4.5	5.0	5.0
18	14.0	13.5	11.0	11.0	7.0	7.0	5.0	5.0	4.5	4.5	5.0	5.0
19	13.5	13.0	11.0	10.5	7.0	7.0	5.0	5.0	4.5	4.5	5.0	5.0
20	13.5	13.0	11.0	11.0	6.5	6.5	5.0	5.0	4.5	4.5	5.0	5.0
21	13.5	13.0	11.0	11.0	6.5	6.5	5.0	5.0	4.5	4.5	5.5	5.0
22	13.5	13.0	11.0	10.5	6.5	6.5	5.0	5.0	4.5	4.5	5.0	5.0
23	13.0	13.0	10.5	10.5	6.5	6.5	5.0	4.5	4.5	4.0	5.0	5.0
24	13.5	13.0	10.5	10.5	6.5	6.5	4.5	4.0	4.5	4.0	5.5	5.0
25	13.5	13.0	10.5	10.0	6.5	6.5	4.5	4.0	4.5	4.0	5.5	5.0
26	13.0	12.5	10.0	9.0	6.5	6.5	4.5	4.0	4.5	4.0	5.5	5.0
27	13.0	13.0	9.5	9.0	6.5	6.5	4.0	4.0	4.5	4.5	5.5	5.0
28	13.0	13.0	9.0	9.0	6.5	6.0	4.0	4.0	4.5	4.5	5.0	4.5
29	13.0	13.0	9.0	9.0	6.5	6.0	4.0	4.0	---	---	5.5	5.0
30	13.0	12.5	9.0	8.5	6.0	6.0	4.0	4.0	---	---	5.5	5.0
31	13.0	12.5	---	---	6.0	6.0	4.0	4.0	---	---	5.5	5.0
MONTH	14.0	12.5	13.0	8.5	8.5	6.0	6.0	4.0	4.5	4.0	5.5	4.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.5	5.0	8.0	7.0	6.5	6.0	8.0	7.5	9.0	8.5	10.5	10.0
2	6.0	5.5	7.5	7.0	6.5	6.0	8.0	7.5	9.0	8.5	10.0	9.5
3	6.0	5.5	7.0	6.5	6.5	6.5	7.5	7.5	9.0	8.5	10.0	9.5
4	6.5	5.5	6.5	6.5	6.5	6.0	7.5	7.5	8.5	8.5	10.0	9.5
5	6.5	6.0	6.5	6.5	7.0	6.5	7.5	7.5	9.0	8.5	10.5	10.0
6	7.0	6.0	7.0	6.5	7.5	7.0	8.0	7.5	9.0	8.5	10.5	10.0
7	7.0	6.5	7.0	6.5	7.0	7.0	8.5	7.5	9.0	8.5	10.5	10.0
8	6.5	6.5	7.5	6.5	7.0	7.0	8.0	8.0	9.0	8.5	10.5	10.0
9	6.5	6.5	8.0	7.0	7.5	7.0	8.5	8.0	9.5	8.5	10.0	10.0
10	7.0	6.5	7.0	6.5	7.0	7.0	8.0	7.5	9.5	9.0	10.0	10.0
11	7.0	6.5	7.0	6.5	7.5	7.0	8.5	7.5	9.5	9.0	10.5	10.0
12	7.5	6.5	7.0	6.5	7.5	7.0	8.5	8.0	10.0	9.0	10.5	10.5
13	6.5	6.5	7.0	6.5	7.5	7.0	8.5	7.5	9.5	8.5	11.0	10.0
14	7.0	6.0	7.0	6.5	8.0	7.0	8.5	7.5	9.0	8.5	11.0	10.5
15	7.0	6.5	7.0	6.5	8.0	7.5	9.0	8.0	9.0	8.5	11.0	10.5
16	6.5	6.0	6.5	6.5	8.5	7.5	8.5	8.0	8.5	8.5	11.0	10.5
17	7.0	6.0	6.5	6.5	8.5	7.5	8.0	8.0	8.5	8.5	11.0	11.0
18	6.5	6.0	6.5	6.0	8.5	7.5	8.0	8.0	9.0	8.5	11.5	11.0
19	7.0	6.0	7.0	6.0	8.5	8.0	8.5	8.0	9.0	8.5	12.0	11.5
20	7.0	6.0	7.0	6.5	8.0	7.5	8.5	8.0	9.0	8.5	12.0	11.5
21	7.0	6.5	6.5	6.5	8.0	7.5	8.5	8.0	9.0	8.5	11.5	11.5
22	7.5	6.5	7.0	6.5	8.0	7.5	9.0	8.0	9.0	8.5	12.0	11.5
23	7.5	7.0	6.5	6.0	8.0	7.5	8.5	8.0	9.0	8.5	11.5	11.5
24	7.5	7.0	6.5	6.0	8.5	7.5	8.0	7.5	9.0	8.5	12.0	11.5
25	7.5	6.5	6.5	6.0	8.0	7.5	8.0	8.0	9.0	8.5	12.0	11.5
26	7.5	7.0	6.5	6.0	8.5	8.0	8.5	8.0	9.5	9.0	12.0	11.5
27	8.0	7.0	6.5	6.0	8.0	8.0	8.5	8.0	9.5	9.0	12.0	11.5
28	8.0	7.0	6.5	6.0	8.5	8.0	9.0	8.5	9.5	9.5	12.5	12.0
29	8.0	7.0	6.5	6.0	8.5	8.0	8.5	8.0	10.0	9.5	12.5	12.0
30	8.5	7.5	6.5	6.0	9.0	8.0	9.5	8.5	10.5	9.0	12.5	12.0
31	---	---	6.5	6.5	---	---	9.0	8.5	10.5	10.0	---	---
MONTH	8.5	5.0	8.0	6.0	9.0	6.0	9.5	7.5	10.5	8.5	12.5	9.5

14181900 LITTLE NORTH SANTIAM RIVER ABOVE EVANS CREEK, NEAR CATES, OR

LOCATION.--Lat 44°45'06", long 122°21'23", in SW¼NW¼ sec.22, T.8 S., R.4 E., Marion County, Hydrologic Unit 17090005, and at mile 16.1 (25.9 km).

DRAINAGE AREA.--53.1 mi² (137.5 km²).

PERIOD OF RECORD.--Chemical analyses: October 1972 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
JAN				
05...	1400	119	1	.32
FEB				
16...	1400	76	4	.82
MAR				
29...	1500	442	4	4.8
MAY				
12...	1530	531	4	5.7
JUL				
12...	1500	36	3	.29

14182500 LITTLE NORTH SANTIAM RIVER NEAR MEHAMA, OR

LOCATION.--Lat 44°47'30", long 122°34'40", in NW¼ sec.16, T.9 S., R.2 E., Marion County, Hydrologic Unit 17090005, on left bank 2.0 mi (3.2 km) east of Mehama and at mile 2.0 (3.2 km).

DRAINAGE AREA.--112 mi^2 (290 km^2) at cableway 1.2 mi (1.9 km) downstream where all discharge measurements are made.

PERIOD OF RECORD.--October 1931 to current year. Records for July to September 1924 and July to September 1931 at site 4 mi (6.4 km) upstream not equivalent owing to difference in drainage areas.

REVISED RECORDS.--WSP 754: 1932. WSP 1218: 1934, 1936, 1949-50. WSP 1935: Maximum only, 1932-34, 1936, 1938, 1943, 1945-49, 1950(M,P), 1951-53(M), 1954(M,P), 1955(M), 1956(M,P), 1957(M), 1958-59(M,P). WSP 2135: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 655.41 ft (199.769 m) above mean sea level. Prior to June 12, 1948, nonrecording gage at about same site and datum.

REMARKS.--Records good. No regulation or diversion above station. Records herein are for measuring site.

AVERAGE DISCHARGE.--46 years, 776 ft^3/s (21.98 m^3/s), 94.09 in/yr (2,390 mm/yr), 562,200 acre-ft/yr (693 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,000 ft^3/s (1,020 m^3/s) Dec. 22, 1964, gage height, 16.73 ft (5.099 m), from rating curve extended above 17,000 ft^3/s (481 m^3/s); minimum, 13 ft^3/s (0.37 m^3/s) Aug. 30, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,180 ft^3/s (90.1 m^3/s) Feb. 28, no peak above base of 8,200 ft^3/s (232 m^3/s); minimum, 32 ft^3/s (0.91 m^3/s) Aug. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	1100	99	239	139	1580	882	773	630	97	41	243
2	44	485	94	260	126	1120	898	1510	563	94	40	170
3	57	327	90	249	119	1080	760	2290	525	94	39	175
4	49	243	85	236	113	828	866	1860	1340	103	39	270
5	44	192	83	204	109	715	1290	1490	1200	95	39	410
6	42	162	76	186	107	786	1770	1150	914	94	39	289
7	40	139	76	178	103	1520	2000	964	740	85	39	210
8	39	124	92	167	99	2140	1980	843	607	80	39	167
9	39	111	157	154	95	1820	1410	843	500	78	38	139
10	40	101	124	149	103	1280	981	1200	433	76	37	121
11	42	94	111	149	121	981	800	1300	384	73	36	107
12	41	88	109	195	119	1110	766	930	346	70	35	95
13	39	83	107	753	162	930	914	747	311	70	34	88
14	38	85	101	672	170	760	851	678	285	67	34	81
15	38	233	95	500	149	642	721	747	260	64	34	78
16	37	740	95	456	137	568	760	773	239	61	34	75
17	37	451	94	405	128	510	678	1560	220	60	34	71
18	36	624	97	371	119	552	585	1420	207	67	32	73
19	36	433	92	354	113	728	510	1020	192	67	32	90
20	36	327	86	319	111	760	470	858	184	60	33	281
21	36	260	83	285	132	648	475	813	181	57	34	563
22	36	217	81	253	246	684	510	760	167	54	34	490
23	36	186	92	226	256	922	678	672	154	52	34	475
24	41	164	99	204	246	806	874	636	142	50	57	1420
25	359	154	105	189	267	678	1030	563	135	49	73	981
26	397	139	568	175	359	596	914	709	128	49	132	684
27	195	126	1270	162	760	1680	703	740	119	47	99	480
28	135	117	648	151	2570	1260	672	786	113	46	117	446
29	113	111	442	142	---	939	678	703	107	46	423	495
30	97	105	342	135	---	793	696	613	103	44	858	728
31	189	---	281	139	---	721	---	568	---	43	428	---
TOTAL	2448	7721	5974	8257	7278	30137	27122	30519	11429	2092	3017	9995
MEAN	79.0	257	193	266	260	972	904	984	381	67.5	97.3	333
MAX	397	1100	1270	753	2570	2140	2000	2290	1340	103	858	1420
MIN	36	83	76	135	95	510	470	563	103	43	32	71
CFSM	.71	2.30	1.72	2.38	2.32	8.68	8.07	8.79	3.40	.60	.87	2.97
IN.	.81	2.56	1.98	2.74	2.42	10.01	9.01	10.14	3.80	.69	1.00	3.32
AC-FT	4860	15310	11850	16380	14440	59780	53800	60530	22670	4150	5980	19830

CAL YR 1976 TOTAL 212548 MEAN 581 MAX 8660 MIN 36 CFSM 5.19 IN 70.60 AC-FT 421600
WTR YR 1977 TOTAL 145989 MEAN 400 MAX 2570 MIN 32 CFSM 3.57 IN 48.49 AC-FT 289600

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR

LOCATION.--Lat 44°47'20", long 122°37'00", in NW¼ sec.18, T.9 S., R.2 E., Marion County, Hydrologic Unit 17090005, on right bank 300 ft (91 m) downstream from highway bridge at Mehama, 0.5 mi (0.8 km) downstream from Little North Santiam River, and at mile 38.71 (62.28 km).

DRAINAGE AREA.--655 mi^2 (1,696 km^2), at cableway 0.8 mi (1.3 km) downstream, where all discharge measurements are made.

PERIOD OF RECORD.--July 1905 to March 1907, October 1910 to September 1914, September 1921 to current year. Monthly discharge only September 1921, published in WSP 1318. Prior to October 1913, published as North Fork of Santiam River at Mehama.

REVISED RECORDS.--WSP 739: 1922-23(M). WSP 1044: 1943. WSP 1248: 1906, 1911-14, 1924(M), 1926, 1934-36(M), 1937, 1938(M), 1942(M). WSP 2135: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 602.49 ft (183.639 m) above mean sea level. Prior to June 15, 1933, nonrecording gage at site 100 ft (30 m) upstream at same datum.

REMARKS.--Records excellent. Flow regulated since 1953 by Detroit Lake (see station 14180500) and Big Cliff Reservoir, usable capacity for reregulating purposes, 2,930 acre-ft (3.61 hm^3). No diversion above station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--61 years (water years 1906, 1911-14, 1922-77), 3,372 ft^3/s (95.50 m^3/s), 2,443,000 acre-ft/yr (3.01 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 76,600 ft^3/s (2,170 m^3/s) Dec. 28, 1945, gage height, 15.37 ft (4.685 m), from rating curve extended above 36,000 ft^3/s (1,020 m^3/s), on basis of slope-area measurement of peak flow; maximum gage height, 17.5 ft (5.33 m) Nov. 20, 1921, from graph based on gage readings, and Jan. 6, 1923, from floodmark, at site then in use; minimum discharge, 254 ft^3/s (7.19 m^3/s) Aug. 3, 1970; minimum daily, 420 ft^3/s (11.9 m^3/s) Sept. 18, 1924.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,730 ft^3/s (134 m^3/s) Feb. 28, gage height, 4.83 ft (1.472 m); minimum, 808 ft^3/s (22.9 m^3/s) Feb. 15; minimum daily, 851 ft^3/s (24.1 m^3/s) Feb. 4, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2440	3420	1130	1250	894	2740	1730	1500	2740	1850	1060	1820
2	2080	3420	1040	1280	885	2140	1760	2330	2540	1470	1060	1910
3	2050	2620	1040	1270	868	2140	1570	3500	2470	1110	1050	1240
4	2020	1890	1010	1250	851	1780	1610	3070	3500	1170	1040	1270
5	1980	2170	1060	1200	859	1590	2020	2640	3710	1190	1080	1920
6	1980	2280	1010	1180	859	1660	2560	2220	3670	1150	1060	2070
7	2070	2200	1040	1160	851	2710	2890	1940	3620	1130	1060	1320
8	2050	2310	1100	1140	868	3620	2920	1760	2980	1110	1070	1700
9	2070	2300	1180	1140	859	3380	2310	1760	2330	1110	1050	1860
10	2020	2220	1110	1120	868	2570	1820	2220	2330	1110	1070	1320
11	2050	2420	1090	1130	877	2110	1600	2410	2080	1110	1060	1500
12	2070	2100	1090	1190	877	2370	1520	2050	2070	1140	1060	2010
13	2110	2740	1090	1770	912	2080	1690	1800	1770	1110	1050	2280
14	2020	2800	1090	1700	921	1800	1610	1660	1450	1090	1340	1590
15	2070	2940	1080	1520	894	1590	1460	1810	1560	1080	1940	1980
16	2100	3770	1070	1460	885	1450	1540	1840	1410	1090	2130	2370
17	2070	3340	1070	1390	877	1350	1410	3190	1380	1100	1560	1520
18	2070	3420	1070	1360	868	1520	1310	3030	1320	1110	1920	1550
19	2140	3380	1060	1370	859	1590	1190	2460	1340	1110	2190	2070
20	1990	3220	1050	1310	859	1620	1140	2410	1310	1090	1290	2490
21	2140	3130	1050	1260	912	1470	1140	2330	1300	1080	1400	2200
22	2160	3150	1040	1240	1040	1470	1180	2220	1310	1450	1890	2490
23	2110	3130	1080	1220	1060	1740	1360	2100	1320	1780	2190	2760
24	2130	2340	1100	1200	1070	1570	1570	2020	1270	1360	1650	3770
25	2490	1620	1100	1110	1070	1390	1760	1890	1250	1100	1780	3360
26	2570	1380	1590	921	1170	1290	1650	2230	1260	1070	1920	2980
27	2360	1340	2330	921	1600	2470	1410	2690	1230	1100	1160	3110
28	2250	1350	1770	903	3920	2190	1360	3170	1200	1070	1230	3520
29	2230	1400	1500	877	---	1860	1360	3070	1150	1060	1820	3650
30	2220	1250	1350	868	---	1650	1370	2920	1490	1070	2620	3990
31	2200	---	1280	877	---	1550	---	2890	---	1060	1520	---
TOTAL	66310	75050	36670	37587	29333	60460	49820	73130	58360	36630	45320	67620
MEAN	2139	2502	1183	1212	1048	1950	1661	2359	1945	1182	1462	2254
MAX	2570	3770	2330	1770	3920	3620	2920	3500	3710	1850	2620	3990
MIN	1980	1250	1010	868	851	1290	1140	1500	1150	1060	1040	1240
AC-FT	131500	148900	72730	74550	58180	119900	98820	145100	115800	72660	89890	134100

CAL YR 1976 TOTAL 1066540 MEAN 2914 MAX 13400 MIN 1010 AC-FT 2115000
WTR YR 1977 TOTAL 636290 MEAN 1743 MAX 3990 MIN 851 AC-FT 1262000

14185000 SOUTH SANTIAM RIVER BELOW CASCADIA, OR

LOCATION.--Lat 44°23'35", long 122°30'35", in SE¼ sec.36, T.13 S., R.2 E., Linn County, Hydrologic Unit 17090006, on right bank 100 ft (30 m) downstream from bridge at Cascadia ranger station, 0.5 mi (0.8 km) downstream from Mouse Creek, 0.5 mi (0.8 km) upstream from Deer Creek, 1.5 mi (2.4 km) southwest of Cascadia, and at mile 48.5 (78.0 km).

DRAINAGE AREA.--174 mi^2 (451 km^2), at gaging cable 0.7 mi (1.1 km) upstream.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1935 to current year. Monthly discharge only September 1935, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 759.88 ft (231.611 m) above mean sea level. Prior to Nov. 1, 1935, nonrecording gage.

REMARKS.--Water-discharge records good. No regulation or diversion above station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--42 years, 826 ft^3/s (23.39 m^3/s), 64.47 in/yr (1,638 mm/yr), 598,400 acre-ft/yr (738 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,600 ft^3/s (782 m^3/s) Dec. 22, 1964, gage height, 19.68 ft (5.998 m), from rating curve extended above 14,000 ft^3/s (396 m^3/s); minimum, 23 ft^3/s (0.65 m^3/s) Dec. 1, 2, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,690 ft^3/s (76.18 m^3/s) Mar. 8, gage height, 6.16 ft (1.878 m), no peak above base of 5,700 ft^3/s (161 m^3/s); minimum, 46 ft^3/s (1.30 m^3/s) Aug. 18-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	274	69	95	84	956	1350	1070	867	150	64	101
2	72	240	66	123	77	723	1160	1550	729	143	63	86
3	81	171	64	124	73	914	928	2160	664	140	61	79
4	75	140	62	112	70	681	978	1930	813	145	59	80
5	71	119	60	102	68	549	1240	1640	773	138	58	80
6	68	102	59	92	68	602	1490	1380	705	136	57	76
7	67	92	58	90	66	1240	1680	1140	635	126	56	71
8	64	84	81	85	65	2150	1880	942	549	119	55	67
9	64	78	121	83	65	1950	1520	873	482	114	53	63
10	64	74	89	80	64	1300	1140	1410	430	112	52	60
11	66	69	78	80	68	971	956	1500	390	105	50	58
12	66	65	76	86	69	1060	907	1190	365	102	48	58
13	64	61	72	171	80	860	1010	971	338	101	47	56
14	62	67	68	185	79	681	914	887	314	98	48	54
15	61	207	66	152	74	565	819	935	295	95	50	54
16	61	232	66	140	70	492	853	1060	280	90	49	54
17	60	173	65	132	67	444	748	2070	265	86	47	54
18	59	199	64	130	65	467	664	1800	251	89	46	57
19	58	160	61	128	63	619	591	1340	243	90	46	71
20	58	138	58	123	63	681	565	1120	235	85	46	99
21	59	121	57	117	86	581	565	1030	237	83	46	114
22	59	109	55	110	143	624	591	935	222	81	48	115
23	59	101	64	104	140	813	681	1030	211	80	49	152
24	68	93	63	98	123	767	833	985	197	81	107	528
25	289	92	70	93	117	681	1010	839	192	80	90	361
26	227	85	150	89	183	591	978	1080	183	80	99	295
27	140	79	192	85	292	1280	839	1130	173	76	85	232
28	109	75	152	81	1170	1200	793	1230	169	75	73	271
29	96	74	130	78	---	985	767	1060	160	73	132	283
30	88	71	114	76	---	833	914	887	156	70	209	472
31	89	---	102	80	---	793	---	780	---	68	138	---
TOTAL	2593	3645	2552	3324	3652	27053	29364	37954	11523	3111	2131	4201
MEAN	83.6	122	82.3	107	130	873	979	1224	384	100	68.7	140
MAX	289	274	192	185	1170	2150	1880	2160	867	150	209	528
MIN	58	61	55	76	63	444	565	780	156	68	46	54
CFSM	.48	.70	.47	.62	.75	5.02	5.63	7.03	2.21	.58	.40	.81
IN.	.55	.78	.55	.71	.78	5.78	6.28	8.11	2.46	.67	.46	.90
AC-FT	5140	7230	5060	6590	7240	53660	58240	75280	22860	6170	4230	8330

CAL YR 1976 TOTAL 225050 MEAN 615 MAX 11100 MIN 55 CFSM 3.53 IN 48.11 AC-FT 446400
WTR YR 1977 TOTAL 131103 MEAN 359 MAX 2160 MIN 46 CFSM 2.06 IN 28.03 AC-FT 260000

14185000 SOUTH SANTIAM RIVER BELOW CASCADIA, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June 1962 to July 1967, February 1969 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 25.0°C July 30, Aug. 7, 1965; minimum, 0.0°C Dec. 7-16, 1972, Jan. 8, 9, 1973, Jan. 6, 7, 1974, Feb. 6, 1976.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 24.5°C Aug. 11, 12, 16; minimum, 0.5°C Jan. 6-10.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT				
05...	1330	70	5	.94
NOV				
17...	1200	243	23	15
DEC				
22...	1010	58	1	.16
FEB				
09...	1000	105	4	1.1
MAR				
30...	0930	839	8	18
MAY				
02...	1445	1570	4	17
11...	1400	1540	10	42
JUN				
22...	1015	224	4	2.4
AUG				
02...	1030	77	6	1.2

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.5	14.5	10.5	10.0	3.5	3.0	3.5	2.5	4.5	3.5	5.5	4.0
2	15.0	14.0	11.0	10.0	3.5	3.0	4.5	3.5	3.5	3.0	5.5	5.0
3	14.0	12.5	11.0	9.5	3.5	3.0	4.5	4.0	3.0	2.5	6.0	5.0
4	12.0	10.5	10.0	9.0	4.5	3.5	4.0	4.0	3.5	2.5	6.5	5.0
5	11.5	10.0	9.0	9.0	5.0	4.0	4.0	1.5	4.0	3.0	6.5	4.5
6	12.5	10.5	9.5	8.5	4.5	4.0	1.5	0.5	4.5	4.0	6.5	5.0
7	13.5	11.5	9.5	9.0	4.5	4.0	1.0	0.5	4.5	4.0	6.5	5.5
8	14.0	12.0	10.5	9.0	5.5	4.5	0.5	0.5	5.0	4.0	6.5	5.5
9	13.0	11.5	10.0	9.0	5.5	5.0	0.5	0.5	5.0	4.5	6.0	4.5
10	13.0	11.5	9.0	8.0	5.0	3.5	2.0	0.5	6.5	5.0	6.0	4.5
11	13.5	12.0	9.0	8.5	3.5	3.5	3.5	2.0	6.5	6.0	7.0	4.5
12	13.0	11.0	8.5	7.0	3.5	3.0	4.0	3.5	7.5	6.5	6.0	4.5
13	12.0	10.5	7.0	6.5	3.5	3.0	4.5	4.0	8.0	7.0	5.5	4.5
14	11.5	10.0	8.5	7.0	4.0	3.0	4.5	3.5	7.5	5.5	5.5	4.0
15	11.5	9.5	10.0	8.5	5.0	4.5	5.0	4.0	6.0	5.5	6.0	4.0
16	10.5	9.0	10.5	10.0	5.0	4.5	5.0	4.5	6.5	5.5	5.5	4.0
17	9.5	8.0	---	---	5.0	4.5	5.0	4.5	7.0	6.5	5.5	4.5
18	9.0	7.5	---	---	4.5	4.0	5.5	5.0	6.5	5.5	5.5	5.0
19	9.0	7.0	10.0	8.0	4.0	2.5	5.5	4.5	6.0	5.0	6.5	5.5
20	8.5	7.0	7.5	6.5	2.5	2.0	4.5	4.0	6.5	5.5	6.5	5.0
21	8.5	7.0	8.5	7.5	2.0	1.5	5.5	4.5	6.5	6.0	7.5	4.5
22	8.5	7.0	9.0	8.5	2.5	2.0	5.0	4.0	6.0	5.5	8.0	5.0
23	8.5	7.0	8.5	6.5	4.0	2.5	4.0	3.0	5.5	4.5	7.5	5.5
24	8.0	7.0	7.0	6.5	4.0	3.5	3.0	2.0	5.0	4.0	6.5	5.0
25	9.5	8.0	8.0	7.0	4.5	4.0	2.5	2.0	5.5	4.0	7.0	5.5
26	9.5	8.5	7.0	4.5	6.0	4.5	2.0	1.5	6.0	4.0	6.5	5.5
27	8.5	7.0	4.5	3.0	6.0	5.0	2.0	1.5	7.0	6.0	6.5	4.5
28	8.0	7.0	3.0	2.5	5.0	4.0	2.0	1.5	6.5	5.0	5.5	4.0
29	9.0	8.0	3.5	2.5	5.0	4.0	2.0	1.5	---	---	6.5	4.5
30	9.5	9.0	3.5	3.0	5.0	3.5	2.0	1.5	---	---	7.0	5.0
31	10.0	9.0	---	---	3.5	2.5	4.0	2.5	---	---	5.5	5.0
MONTH	15.5	7.0	11.0	2.5	6.0	1.5	5.5	0.5	8.0	2.5	8.0	4.0

14185000 SOUTH SANTIAM RIVER BELOW CASCADIA, OR--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.5	5.5	---	---	11.5	10.0	19.0	16.5	---	---	15.5	13.0
2	7.5	5.5	---	---	11.5	8.0	18.0	15.5	23.5	20.0	15.5	14.0
3	8.5	5.0	---	---	11.0	9.5	16.5	14.5	24.0	20.0	16.0	15.0
4	9.0	5.5	---	---	12.0	9.5	14.5	13.5	23.5	19.5	17.0	16.0
5	9.0	6.0	---	---	15.0	10.0	14.5	13.0	23.0	19.0	17.5	16.0
6	9.5	6.0	---	---	15.5	12.0	17.0	13.0	23.5	19.5	17.5	15.5
7	---	---	---	---	15.5	13.0	18.0	14.5	23.5	19.5	17.0	15.5
8	---	---	---	---	15.0	11.5	18.5	15.5	23.5	19.5	16.5	14.5
9	---	---	---	---	14.5	10.5	17.0	15.0	23.5	19.0	16.0	13.5
10	---	---	---	---	14.5	11.0	18.0	14.0	24.0	19.0	16.0	13.5
11	---	---	9.0	7.0	13.5	11.5	19.0	15.5	24.5	19.5	16.5	13.5
12	---	---	10.0	6.5	15.0	11.5	18.0	15.5	24.5	20.0	17.0	13.5
13	---	---	10.5	8.0	15.5	11.5	17.5	14.0	24.0	20.0	17.0	14.0
14	---	---	9.5	8.0	15.5	12.0	18.5	15.0	23.0	19.5	15.5	14.5
15	---	---	8.5	7.0	15.5	12.0	19.5	16.5	23.0	18.5	15.0	13.5
16	---	---	8.5	6.5	16.0	12.5	20.0	17.0	24.5	19.5	14.5	13.0
17	---	---	8.0	7.0	16.0	13.5	19.5	17.5	24.0	20.0	14.0	13.0
18	---	---	8.5	7.0	16.5	14.0	18.0	16.0	23.5	20.0	14.0	13.5
19	---	---	11.0	7.0	16.0	14.5	18.0	15.0	22.5	19.5	14.0	13.5
20	---	---	10.5	8.0	16.0	13.5	20.0	16.5	20.0	18.5	13.0	13.0
21	---	---	11.5	9.0	16.0	13.0	20.5	17.0	19.0	18.0	13.0	12.5
22	---	---	10.0	8.0	16.0	15.0	21.0	17.5	21.0	17.5	12.0	11.0
23	---	---	9.0	8.0	18.0	15.0	---	---	20.0	17.0	11.5	11.0
24	---	---	10.5	7.5	18.0	15.0	---	---	17.5	16.5	11.0	10.5
25	---	---	10.0	7.5	18.5	16.0	---	---	16.0	14.5	11.5	10.5
26	---	---	9.5	8.5	18.5	15.5	---	---	15.5	14.5	11.0	9.5
27	---	---	8.5	7.0	18.5	15.5	---	---	16.0	15.0	11.0	10.5
28	---	---	10.0	7.0	18.5	15.0	---	---	16.0	15.0	11.5	11.0
29	---	---	11.5	7.0	18.5	15.5	---	---	15.5	15.0	10.5	9.5
30	---	---	10.5	8.5	18.5	15.0	---	---	16.0	14.0	10.5	9.0
31	---	---	12.0	9.0	---	---	---	---	15.0	13.5	---	---
MONTH	9.5	5.0	12.0	6.5	18.5	8.0	21.0	13.0	24.5	13.5	17.5	9.0

14185800 MIDDLE SANTIAM RIVER NEAR CASCADIA, OR

LOCATION.--Lat 44°30'55", long 122°22'15", in NE¼ sec.19, T.12 S., R.4 E., Linn County, Hydrologic Unit 17090006, on right bank 5.6 mi (9.0 km) downstream from Bear Creek, 10 mi (16 km) northeast of Cascadia, and at mile 17.5 (28.2 km).

DRAINAGE AREA.--104 mi^2 (269 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,040 ft (320 m), from topographic map.

REMARKS.--Water-discharge records good except those for period of no gage-height record, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--14 years, 650 ft^3/s (18.41 m^3/s), 84.87 in/yr (2,156 mm/yr), 470,900 acre-ft/yr (581 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,900 ft^3/s (649 m^3/s) Dec. 22, 1964, gage height, 15.75 ft (4.801 m), from floodmark, from rating curve extended above 7,000 ft^3/s (198 m^3/s) on basis of slope-area measurement of peak flow; minimum, 28 ft^3/s (0.79 m^3/s) Oct. 17, 26, 27, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,480 ft^3/s (41.9 m^3/s) Mar. 8, gage height, 4.63 ft (1.411 m), no peak above base of 4,500 ft^3/s (127 m^3/s); minimum, 48 ft^3/s (1.36 m^3/s) Oct. 19-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	356	93	154	136	720	750	700	634	142	78	162
2	63	256	88	196	126	545	650	950	562	138	74	130
3	73	185	87	185	120	495	550	1200	532	136	73	124
4	66	148	84	169	116	433	700	1000	750	142	88	126
5	62	126	82	152	118	419	900	800	676	134	88	122
6	60	112	79	136	118	472	1100	700	606	130	84	109
7	59	102	78	140	114	745	1300	600	545	126	79	98
8	58	95	100	128	105	1280	1100	550	479	122	79	90
9	56	88	140	120	105	1150	800	700	430	118	78	88
10	56	84	109	124	109	823	700	1000	390	114	76	76
11	58	79	102	122	116	666	500	850	359	112	74	69
12	58	76	100	144	118	700	480	750	333	111	73	69
13	55	73	96	256	152	593	600	700	310	111	71	66
14	54	84	91	259	142	512	500	685	289	103	71	60
15	52	320	90	224	130	452	480	681	271	102	69	59
16	52	472	90	216	122	419	440	643	254	98	69	58
17	51	304	90	211	116	390	400	823	240	96	66	59
18	50	313	90	214	112	390	380	765	229	100	65	65
19	50	248	84	214	109	487	360	676	216	100	62	80
20	49	209	79	204	109	504	350	634	211	95	63	128
21	49	180	78	194	138	460	400	643	209	93	63	209
22	49	160	74	185	209	524	500	615	196	90	63	185
23	49	146	82	173	189	643	600	666	187	88	62	289
24	60	134	80	164	171	597	750	615	180	90	116	685
25	268	132	91	156	178	541	900	554	173	87	109	487
26	178	120	265	144	224	495	700	685	167	84	194	383
27	107	111	390	138	426	1010	550	720	160	82	130	292
28	85	105	274	132	1060	856	500	781	156	82	148	310
29	78	102	221	130	---	750	500	705	150	80	243	333
30	71	96	189	126	---	650	600	629	146	78	422	520
31	138	---	169	132	---	550	---	593	---	76	232	---
TOTAL	2274	5016	3765	5242	4988	19271	19040	22613	10040	3260	3262	5533
MEAN	73.4	167	121	169	178	622	635	729	335	105	105	184
MAX	268	472	390	259	1060	1280	1300	1200	750	142	422	685
MIN	49	73	74	120	105	390	350	550	146	76	62	58
CFSM	.71	1.61	1.16	1.63	1.71	5.98	6.11	7.01	3.22	1.01	1.01	1.77
IN.	.81	1.79	1.35	1.88	1.78	6.89	6.81	8.09	3.59	1.17	1.17	1.98
AC-FT	4510	9950	7470	10400	9890	38220	37770	44850	19910	6470	6470	10970

CAL YR 1976 TOTAL 187339 MEAN 512 MAX 5890 MIN 49 CFSM 4.92 IN 67.01 AC-FT 371600
WTR YR 1977 TOTAL 104304 MEAN 286 MAX 1300 MIN 49 CFSM 2.75 IN 37.31 AC-FT 206900

NOTE.--No gage-height record Mar. 29 to May 13.

14185800 MIDDLE SANTIAM RIVER NEAR CASCADIA, OR

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1963 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 22.5°C Aug. 2, 3, 6, 11-13, 16, 17, 1977; minimum, 0.5°C Dec. 23, 24, 1965, Feb. 5, 1976, Jan. 9, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 22.5°C Aug. 2, 3, 6, 11-13, 16, 17; minimum, 0.5°C Jan. 9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT				
05...	1100	45	1	.12
NOV				
16...	1145	964	1	2.6
DEC				
21...	1010	78	2	.42
FEB				
08...	1100	95	5	1.3
MAR				
29...	1015	705	5	9.5
MAY				
02...	1615	370	4	4.0
12...	1100	1070	9	26
JUN				
21...	1045	211	6	3.4
AUG				
03...	1115	58	3	.47

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.5	13.0	9.5	9.5	3.5	3.5	4.0	2.5	4.0	3.5	4.5	3.5
2	14.0	12.5	10.0	9.5	3.5	3.0	4.5	4.0	3.5	3.0	5.0	4.0
3	12.5	11.0	9.5	9.0	4.0	3.0	4.0	3.5	3.0	2.5	5.0	4.0
4	11.0	9.5	9.0	8.5	4.5	4.0	4.0	3.5	3.5	2.5	6.0	4.5
5	11.5	9.0	8.5	8.0	5.0	4.5	3.5	1.0	4.5	3.0	5.5	4.5
6	12.0	10.0	9.5	8.5	5.0	4.0	1.5	1.0	5.0	4.0	6.0	4.5
7	12.5	10.5	9.0	8.5	5.0	4.5	1.5	1.0	4.0	3.5	5.5	5.0
8	12.5	11.0	10.0	9.0	5.5	5.0	1.0	1.0	5.0	4.0	5.5	5.0
9	12.0	10.0	9.0	8.5	5.5	5.0	1.0	0.5	5.5	4.5	5.0	4.5
10	11.5	10.5	8.5	7.5	5.0	4.0	3.0	1.0	6.0	5.0	5.5	4.5
11	12.5	11.0	8.5	7.5	4.0	3.5	3.5	3.0	6.5	6.0	6.0	4.5
12	11.5	10.0	7.5	6.5	3.5	3.5	4.0	3.5	7.0	6.5	5.5	4.5
13	11.0	9.0	6.5	5.5	3.5	3.5	4.0	4.0	7.5	6.5	5.5	4.0
14	10.5	9.0	8.0	6.5	4.5	3.0	4.0	3.5	6.5	5.5	5.5	4.0
15	10.0	8.5	9.5	8.0	4.5	4.5	4.5	4.0	5.5	5.0	5.5	4.0
16	9.0	8.0	---	---	5.0	4.5	5.0	4.0	6.5	5.5	5.5	4.0
17	8.5	7.0	---	---	5.0	4.0	5.0	4.0	7.0	6.5	5.5	4.5
18	8.0	6.5	---	---	5.0	4.5	5.0	4.5	6.0	5.0	5.5	4.5
19	7.5	6.0	8.5	7.0	4.0	3.0	5.0	4.5	5.5	5.0	6.0	5.0
20	7.0	6.0	7.5	6.5	3.0	2.5	4.5	3.5	6.0	5.5	6.0	5.0
21	7.5	6.0	8.0	7.0	3.0	2.0	5.0	4.5	5.5	5.5	6.5	4.5
22	7.5	6.5	8.0	7.5	3.0	2.5	5.0	3.5	5.0	4.0	7.0	4.5
23	8.0	7.0	7.5	6.5	4.5	3.0	3.5	2.5	4.5	4.0	6.0	5.0
24	8.0	7.5	6.5	6.0	4.0	3.5	2.5	2.0	4.5	4.0	6.0	4.5
25	9.0	8.0	7.5	7.0	5.0	4.0	2.5	2.0	4.5	4.0	6.5	5.0
26	8.5	8.0	7.0	4.0	5.5	4.5	2.0	1.5	5.0	4.0	6.0	5.5
27	8.0	7.0	4.0	3.0	5.5	5.0	2.0	1.5	5.5	5.0	6.0	4.0
28	8.0	6.5	3.0	2.5	5.0	4.0	2.0	1.5	5.5	3.5	5.5	3.5
29	9.0	8.0	3.5	3.0	5.0	4.5	2.0	1.5	---	---	6.0	4.5
30	9.5	8.5	3.5	3.5	5.0	3.5	2.5	1.5	---	---	6.5	4.5
31	9.5	9.0	---	---	3.5	3.0	4.0	2.5	---	---	5.5	4.5
MONTH	14.5	6.0	10.0	2.5	5.5	2.0	5.0	0.5	7.5	2.5	7.0	3.5

14185800 MIDDLE SANTIAM RIVER NEAR CASCADIA, OR--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.5	5.0	8.5	7.0	10.5	9.0	18.0	15.5	22.0	17.0	14.0	12.5
2	7.0	5.5	7.5	7.0	10.5	7.5	17.5	14.0	22.5	18.0	15.0	13.0
3	7.5	5.0	7.5	6.0	10.5	9.0	15.5	13.0	22.5	18.0	14.5	14.0
4	8.0	5.0	6.0	5.5	10.5	9.0	13.0	12.0	22.0	17.5	15.0	14.5
5	8.0	5.5	7.0	5.5	13.5	9.0	13.5	11.5	22.0	17.5	16.5	14.5
6	8.0	5.5	8.0	5.5	14.5	11.0	15.0	12.5	22.5	18.0	16.5	14.0
7	8.0	5.5	8.0	5.5	14.5	12.0	18.0	14.0	22.0	17.5	16.5	14.0
8	6.5	6.0	10.0	6.5	14.0	11.0	18.0	14.5	22.5	18.0	15.5	13.0
9	6.5	6.5	9.0	7.0	13.5	10.0	16.0	13.5	21.5	17.0	15.0	12.0
10	7.0	5.5	7.0	6.5	13.5	10.5	18.0	13.5	22.0	17.5	15.5	12.5
11	7.5	7.0	8.0	6.0	13.0	10.5	19.0	14.5	22.5	18.0	16.0	13.0
12	8.5	5.0	8.5	5.5	14.0	11.0	17.5	14.0	22.5	18.0	16.0	13.0
13	7.0	6.0	9.5	7.0	15.0	11.0	17.5	12.5	22.5	18.0	15.5	12.5
14	7.5	5.0	8.5	7.5	15.0	11.0	19.0	14.5	21.0	18.5	14.0	13.5
15	7.5	6.0	7.5	6.5	15.0	11.0	19.5	15.0	22.0	17.5	14.0	13.0
16	7.0	6.0	8.0	6.0	14.0	11.0	19.5	15.5	22.5	18.5	13.5	12.0
17	7.5	4.5	7.0	6.0	15.0	11.5	18.0	16.0	22.5	18.5	13.0	11.5
18	7.0	4.5	8.0	6.5	15.5	12.5	16.5	15.0	21.5	18.5	13.0	12.0
19	7.5	4.0	10.5	7.0	16.0	13.0	18.5	13.5	21.0	18.0	12.5	12.0
20	8.0	5.0	9.5	7.5	15.0	12.5	20.0	15.5	20.5	18.0	12.0	11.5
21	8.5	6.5	10.5	8.5	15.0	11.5	20.5	16.0	19.0	18.0	11.5	11.0
22	8.5	6.0	9.0	7.5	17.0	13.0	21.0	16.0	18.0	17.5	11.5	10.0
23	9.0	6.5	8.5	7.5	17.0	13.5	19.5	16.5	18.5	17.5	10.5	10.0
24	9.5	6.5	9.5	7.0	17.0	13.0	20.0	16.5	18.5	16.0	10.5	9.5
25	8.5	7.0	9.5	7.0	18.0	14.5	19.0	16.5	16.0	14.5	11.0	10.0
26	9.0	6.0	9.0	7.5	17.5	14.0	21.0	17.0	14.5	14.5	10.5	8.5
27	9.5	6.0	7.5	6.0	17.5	14.0	21.0	17.0	14.5	14.5	10.5	10.0
28	9.0	7.0	8.5	6.5	17.5	14.0	19.0	17.0	14.5	14.0	11.0	10.0
29	9.5	7.5	10.0	6.5	17.5	14.5	19.0	15.0	14.0	14.0	10.0	9.0
30	9.5	7.0	9.5	7.5	18.0	15.0	20.5	15.5	14.5	13.0	9.5	9.0
31	---	---	11.0	8.5	---	---	21.5	16.5	14.0	12.0	---	---
MONTH	9.5	4.0	11.0	5.5	18.0	7.5	21.5	11.5	22.5	12.0	16.5	8.5

14185900 QUARTZVILLE CREEK NEAR CASCADIA, OR

LOCATION.--Lat 44°32'25", long 122°26'05", in NW¼ sec.10, T.12 S., R.3 E., Linn County, Hydrologic Unit 17090006, on Bureau of Land Management land, on right bank 80 ft (24 m) downstream from Panther Creek, 10 mi (16 km) north of Cascadia, and at mile 6.6 (10.6 km).

DRAINAGE AREA.--99.2 mi^2 (256.9 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1963 to November 1964 (destroyed by flood of December 1964); October 1965 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 1,050 ft (320 m), from topographic map. Aug. 13, 1963, to Dec. 22, 1964, water-stage recorder on left bank at present datum.

REMARKS.--Water-discharge records excellent. No regulation or diversion above station.

AVERAGE DISCHARGE.--13 years (water years 1964, 1966-77), 690 ft^3/s (19.54 m^3/s), 94.46 in/yr (2,399 mm/yr), 499,900 acre-ft/yr (616 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,400 ft^3/s (6.34 m^3/s) Jan. 20, 1972, gage height, 16.38 ft (4.993 m); minimum, 14 ft^3/s (0.40 m^3/s) Aug. 19-23, 1973.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 36,500 ft^3/s (1,030 m^3/s) Dec. 22, 1964, from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3,000 ft^3/s (85.0 m^3/s) Mar. 8, no peak above base of 4,500 ft^3/s (127 m^3/s); minimum, 22 ft^3/s (0.62 m^3/s) Oct. 21, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	578	54	133	96	1170	887	664	541	82	44	124
2	34	265	51	175	82	723	826	1040	448	76	42	90
3	42	162	49	167	76	550	718	1870	428	76	41	96
4	35	120	47	147	71	450	957	1620	989	82	41	102
5	33	96	44	129	67	400	1420	1240	838	76	39	104
6	30	78	41	114	67	700	1850	900	628	74	39	88
7	30	67	39	108	64	1500	1990	650	504	69	41	71
8	29	59	69	96	62	3000	1890	550	416	65	39	60
9	27	53	124	88	60	2000	1320	550	349	65	38	53
10	27	49	90	96	62	1300	925	1070	305	64	37	49
11	29	44	74	94	71	950	774	1060	271	62	34	44
12	29	39	72	126	71	1000	751	774	243	60	33	39
13	27	38	69	412	100	800	900	628	219	60	33	35
14	26	49	62	408	94	600	779	559	202	59	33	34
15	25	404	59	294	82	500	669	541	186	57	33	33
16	25	569	57	255	72	400	685	513	169	56	33	31
17	24	305	56	228	67	350	578	900	159	54	30	31
18	23	337	54	213	62	370	504	838	149	56	29	35
19	23	240	50	200	59	550	440	664	140	57	29	62
20	23	183	47	177	59	600	412	578	133	54	29	228
21	23	147	45	162	71	550	428	559	131	53	29	356
22	23	124	42	145	234	600	487	509	122	51	30	237
23	23	110	51	131	205	750	623	491	118	50	31	436
24	39	96	50	120	186	650	774	465	110	51	100	906
25	249	94	74	112	188	550	875	420	104	50	78	588
26	149	80	384	104	228	500	740	757	100	49	202	408
27	69	71	648	98	768	1300	598	729	94	49	100	291
28	47	65	345	90	2510	1000	578	850	92	45	145	284
29	39	62	240	84	---	800	555	696	86	45	225	305
30	34	57	186	80	---	650	623	569	82	45	541	424
31	208	---	149	88	---	620	---	504	---	42	211	---
TOTAL	1474	4641	3424	4874	5834	25883	25556	23758	8356	1834	2409	5634
MEAN	47.5	155	110	157	208	835	852	766	279	59.2	77.7	188
MAX	249	578	648	412	2510	3000	1990	1870	989	82	541	906
MIN	23	38	39	80	59	350	412	420	82	42	29	31
CFSM	.48	1.56	1.11	1.58	2.10	8.42	8.59	7.72	2.81	.60	.78	1.90
IN.	.55	1.74	1.28	1.63	2.19	9.71	9.58	8.91	3.13	.69	.90	2.11
AC-FT	2920	9210	6790	9670	11570	51340	50690	47120	16570	3640	4780	11180

CAL YR 1976 TOTAL 182075 MEAN 497 MAX 10000 MIN 23 CFSM 5.01 IN 68.28 AC-FT 361100
WTR YR 1977 TOTAL 113677 MEAN 311 MAX 3000 MIN 23 CFSM 3.14 IN 42.63 AC-FT 225500

NOTE.--No gage-height record Mar. 3-31.

14185900 QUARTZVILLE CREEK NEAR CASCADIA, OR—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.—
WATER TEMPERATURES: August 1963 to November 1964, October 1965 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURES: Maximum, 25.5°C Aug. 10, 11, 1971; minimum, 0.0°C on several days in 1969, 1972, 1974, 1976, 1977.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURES: Maximum, 23.0°C Aug. 17; minimum, 0.0°C Jan. 6, 8, 9.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.5	13.0	9.5	9.0	3.0	2.5	3.5	2.0	4.0	3.5	4.0	3.0
2	14.5	12.0	10.0	9.0	3.0	2.5	4.0	3.5	3.5	2.5	4.5	3.5
3	12.0	11.0	9.5	8.5	3.5	2.5	4.0	3.5	3.0	2.0	5.0	3.5
4	11.0	9.5	9.0	8.5	4.5	3.5	3.5	3.5	3.0	2.0	6.0	4.0
5	12.0	9.5	8.5	8.0	4.5	4.0	3.5	0.5	4.0	2.5	6.0	4.0
6	12.5	10.5	9.0	8.5	4.5	3.5	1.0	0.0	5.0	4.0	5.5	4.0
7	12.5	11.0	9.0	8.5	4.5	4.0	1.0	0.5	4.5	4.0	5.5	4.5
8	13.0	11.5	10.0	9.0	5.0	4.5	0.5	0.0	4.5	4.0	5.5	5.0
9	12.5	11.0	9.0	8.5	5.0	4.5	0.5	0.0	5.0	4.0	5.0	4.0
10	12.5	11.5	8.0	7.5	4.5	4.0	1.5	0.5	6.0	5.0	5.5	4.0
11	13.0	11.5	8.0	7.5	4.0	3.5	3.0	1.5	6.5	5.5	6.0	4.0
12	12.0	10.5	7.5	7.0	3.5	3.0	3.5	3.0	7.5	6.5	5.0	4.0
13	11.5	10.5	6.5	6.0	3.0	3.0	4.5	3.5	7.5	7.0	5.5	3.5
14	11.0	10.0	8.0	6.5	4.0	2.5	4.0	3.5	6.5	5.5	5.0	3.5
15	10.5	9.5	9.0	8.0	4.5	4.0	5.0	4.0	6.0	5.0	6.0	3.5
16	10.0	9.0	---	---	4.5	4.0	5.0	4.0	6.5	5.0	5.5	3.0
17	9.0	7.5	---	---	4.5	4.0	5.0	4.0	7.5	6.0	5.0	3.5
18	8.5	7.5	---	---	4.5	4.0	5.5	4.5	6.5	5.0	5.0	4.0
19	8.0	7.0	9.0	7.0	3.5	2.5	5.5	4.5	6.0	5.0	5.0	4.5
20	8.0	7.0	7.5	6.5	2.5	2.0	4.5	3.5	6.0	5.5	5.5	4.0
21	8.0	7.0	8.0	7.0	2.0	1.5	5.0	4.0	5.0	4.5	7.0	4.0
22	8.0	7.0	8.0	7.5	2.5	1.5	4.5	3.5	4.5	4.0	7.0	4.0
23	8.0	6.5	7.5	6.5	3.5	2.5	3.0	2.5	4.0	3.5	5.5	4.5
24	7.5	7.0	7.0	6.0	3.5	3.0	2.5	1.5	4.0	3.5	6.0	4.0
25	8.5	7.5	7.5	6.5	4.5	3.5	2.5	1.5	4.0	3.5	6.0	4.5
26	8.5	7.5	6.5	4.0	5.5	4.5	2.0	1.0	5.0	3.5	5.5	4.5
27	8.0	7.0	4.0	3.0	5.5	5.0	2.0	1.0	5.5	4.5	5.5	3.5
28	7.5	6.5	3.0	2.0	5.0	4.0	2.0	1.0	5.0	3.5	4.5	3.5
29	8.5	7.5	3.0	2.5	5.5	4.5	1.5	1.0	---	---	6.0	3.5
30	9.0	8.0	3.0	2.5	4.5	3.5	2.0	1.0	---	---	6.5	4.0
31	9.5	9.0	---	---	3.0	2.5	3.5	2.0	---	---	4.5	4.0
MONTH	14.5	6.5	10.0	2.0	5.5	1.5	5.5	0.0	7.5	2.0	7.0	3.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.0	4.5	8.0	7.5	11.0	9.5	19.5	17.0	22.0	18.0	15.0	11.5
2	6.5	4.5	9.0	7.0	12.0	8.0	18.5	15.5	22.5	19.0	15.0	13.5
3	8.0	4.5	7.5	6.0	10.5	9.5	16.0	14.0	22.5	18.5	15.0	14.5
4	8.5	4.5	6.5	5.5	11.0	9.0	15.5	13.5	22.0	18.5	15.5	14.5
5	8.5	4.5	7.0	5.5	14.5	9.0	14.5	12.5	22.0	18.0	16.5	15.0
6	8.0	5.0	8.5	5.5	15.5	11.0	17.5	12.5	22.5	18.5	17.0	14.0
7	8.0	5.0	8.0	5.5	15.5	12.0	19.0	14.0	22.5	18.5	16.5	14.5
8	6.0	5.0	10.5	6.5	15.0	11.5	19.5	15.0	22.5	19.0	15.5	13.5
9	6.0	4.5	10.0	6.5	15.0	10.0	17.0	15.0	22.0	18.0	15.5	13.0
10	7.0	4.5	7.0	6.5	15.0	11.0	18.5	13.5	22.0	18.5	16.0	13.5
11	8.5	5.5	7.5	6.0	14.0	11.5	20.0	15.0	22.5	19.0	16.5	14.0
12	8.5	5.0	9.5	5.5	16.0	11.5	18.0	15.0	22.5	19.0	16.5	14.0
13	6.5	5.0	10.0	7.0	16.5	11.5	18.5	13.5	22.5	19.5	16.5	14.0
14	7.5	4.5	9.0	7.5	16.5	12.0	19.5	14.5	21.5	19.5	15.5	14.5
15	7.0	5.5	7.5	6.5	16.5	12.0	20.5	15.5	22.0	18.5	14.5	13.5
16	7.0	5.5	8.0	6.0	17.0	12.0	20.5	16.5	22.5	19.5	14.5	13.0
17	7.5	4.0	7.5	6.5	17.0	13.0	19.0	16.5	23.0	19.5	14.0	12.5
18	7.0	4.0	8.0	6.5	17.5	14.0	17.0	16.0	22.0	19.5	14.0	13.0
19	8.0	3.5	10.5	6.5	17.5	14.5	19.0	14.5	21.5	19.0	13.5	12.5
20	8.5	4.5	10.0	7.5	16.0	14.0	20.5	16.0	21.0	19.0	12.5	11.5
21	8.0	6.0	11.0	8.5	16.5	13.0	21.0	16.5	19.5	18.5	12.0	11.0
22	9.0	6.0	10.0	7.5	18.5	14.5	21.5	17.0	20.5	18.0	12.0	10.0
23	9.0	6.5	8.5	7.5	18.5	14.5	20.5	17.5	19.5	17.0	11.5	10.0
24	10.0	6.0	11.0	7.0	18.5	14.5	21.0	17.5	18.0	16.5	10.5	9.5
25	8.5	7.0	10.0	7.0	19.5	16.0	19.5	17.5	16.5	14.5	11.0	9.5
26	9.5	6.0	9.0	7.5	19.0	15.0	22.0	18.0	15.0	14.0	11.0	8.0
27	10.5	5.5	7.5	6.5	18.5	15.5	22.0	18.0	15.0	13.5	10.0	9.5
28	9.5	7.0	9.5	6.5	19.0	15.0	20.0	17.5	15.0	14.0	11.0	10.0
29	10.0	7.5	11.5	6.5	19.0	15.5	20.0	16.0	14.5	13.5	10.0	9.5
30	9.5	7.0	10.0	7.5	19.5	15.5	21.0	16.0	14.5	12.0	10.0	9.0
31	---	---	12.5	8.5	---	---	22.0	17.5	14.5	11.5	---	---
MONTH	10.5	3.5	12.5	5.5	19.5	8.0	22.0	12.5	23.0	11.5	17.0	8.0

14186100 GREEN PETER LAKE NEAR FOSTER, OR

LOCATION.--Lat 44°27'10", long 122°32'40", in NE¼SE¼ sec.10, T.13 S., R.2 E., Linn County, Hydrologic Unit 17090006, in Green Peter Dam on Middle Santiam River 7.0 mi (11.3 km) northeast of Foster and at mile 5.7 (9.2 km).

DRAINAGE AREA.--273 mi² (707 km²).

PERIOD OF RECORD.--October 1966 to current year. Prior to October 1971, published as Green Peter Reservoir near Foster.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by concrete, gravity-type dam with ogee spillway completed in 1966 by Corps of Engineers; controlled storage began Oct. 6, 1966. Total capacity, 428,100 acre-ft (528 hm³) and usable capacity 330,800 acre-ft (408 hm³) between elevations 887.0 ft (270.36 m), proposed lower limit of operation, and 1,015.0 ft (309.37 m), top of spillway gates. Reservoir used for flood control, power development, improvement of navigation, pollution abatement, and other purposes. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 417,700 acre-ft (515 hm³) June 18, 1977, elevation, 1,012.17 ft (308.509 m); minimum, 116,900 acre-ft (144 hm³) Dec. 15, 1972, elevation, 899.20 ft (274.076 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 417,700 acre-ft (515 hm³) June 18, elevation, 1,012.17 ft (308.509 m); minimum, 139,400 acre-ft (172 hm³) Feb. 21, elevation, 911.68 ft (277.880 m).

Capacity table (elevation, in feet, and total contents, in acre-feet)

899	116,600	960	251,100
900	118,300	980	309,700
920	115,700	1,000	374,800
940	199,900	1,013	420,700

ELEVATION, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	979.60	955.70	932.25	915.70	914.99	922.17	967.96	1002.06	1011.16	1010.17	1000.43	990.21
2	978.85	954.63	931.54	915.54	914.85	923.92	969.21	1003.40	1011.23	1009.89	1000.21	990.01
3	978.09	953.41	931.02	915.34	914.69	925.57	970.32	1005.41	1011.58	1009.67	999.89	989.79
4	977.31	952.74	930.30	915.24	914.54	926.85	971.62	1006.57	1011.59	1009.46	999.49	989.49
5	976.51	952.00	929.58	915.13	914.38	927.99	973.37	1006.91	1011.59	1009.25	999.08	989.20
6	975.73	951.38	928.84	914.97	914.23	929.32	975.56	1006.87	1011.87	1008.99	998.67	988.83
7	974.92	950.71	928.10	914.82	914.04	932.15	977.93	1006.65	1011.98	1008.73	998.27	988.45
8	974.11	950.04	927.47	914.63	913.88	936.12	980.39	1006.33	1011.98	1008.45	997.93	988.04
9	973.29	949.42	926.90	914.43	913.69	939.41	982.19	1006.42	1011.98	1008.18	997.60	987.65
10	972.48	948.79	926.26	914.24	913.44	941.48	983.52	1006.94	1011.93	1007.91	997.18	987.23
11	971.66	947.56	925.56	914.05	913.28	943.04	984.65	1007.43	1011.85	1007.62	996.75	986.82
12	970.83	946.84	924.86	913.93	913.15	944.80	985.75	1007.86	1011.89	1007.34	996.33	986.39
13	969.99	946.16	924.14	914.57	913.08	946.19	986.98	1008.37	1011.98	1007.02	995.91	985.93
14	969.14	945.53	923.41	915.17	912.96	947.32	988.04	1009.18	1011.96	1006.70	995.46	985.55
15	968.29	945.48	922.70	915.43	912.85	948.25	989.01	1010.01	1012.00	1006.36	995.03	985.16
16	967.42	945.48	921.96	915.62	912.68	949.09	989.96	1010.04	1012.03	1006.02	994.60	984.39
17	966.57	944.65	921.21	915.76	912.53	949.88	990.80	1010.23	1012.04	1005.67	994.17	984.25
18	965.68	943.83	920.48	915.88	912.29	950.72	991.52	1010.19	1012.03	1005.34	993.71	984.03
19	964.79	942.86	919.70	915.89	912.12	951.79	992.18	1009.94	1012.01	1005.03	993.26	983.67
20	963.89	941.91	918.92	915.92	911.95	952.87	992.79	1009.56	1012.00	1004.69	992.82	983.41
21	962.99	940.75	918.22	915.95	911.95	953.78	993.42	1009.49	1011.93	1004.34	992.40	983.41
22	962.09	939.55	917.51	915.97	912.23	954.81	994.07	1009.39	1011.86	1003.97	991.95	983.29
23	961.41	938.29	916.96	915.86	912.41	956.24	994.88	1009.30	1011.77	1003.61	991.54	983.41
24	960.84	937.00	916.40	915.81	912.60	957.40	995.82	1009.18	1011.61	1003.25	991.70	983.99
25	960.57	936.37	915.91	915.82	912.99	958.41	996.93	1009.50	1011.31	1002.88	991.36	984.23
26	960.12	935.72	915.91	915.73	913.50	959.35	997.91	1010.11	1011.13	1002.55	991.06	984.07
27	959.33	935.06	916.53	915.62	915.18	961.48	998.77	1010.44	1010.96	1002.26	990.72	983.61
28	958.53	934.36	916.69	915.42	919.62	963.11	999.53	1010.80	1010.78	1001.89	990.43	982.90
29	957.28	933.67	916.47	915.38	---	964.41	1000.30	1010.88	1010.58	1001.51	990.37	982.22
30	956.45	932.98	916.23	915.25	---	965.49	1001.14	1010.99	1010.39	1001.12	990.62	981.75
31	955.86	---	915.98	915.07	---	966.54	---	1011.05	---	1000.74	990.43	---
MEAN	967.57	944.43	922.52	915.29	913.58	946.77	987.22	1008.44	1011.63	1005.83	994.82	985.71
MAX	979.60	955.70	932.25	915.97	919.62	966.54	1001.14	1011.05	1012.04	1010.17	1000.43	990.21
MIN	955.86	932.98	915.91	913.93	911.95	922.17	967.96	1002.06	1010.39	1000.74	990.37	981.75
(†)	239,900	183,600	147,700	145,900	155,000	269,500	378,700	413,600	411,200	377,300	342,900	315,200
(‡)	-71,000	-56,300	-35,900	-1,800	+9,100	+114,500	+109,200	+34,900	-2,400	-33,900	-34,400	-27,700

CAL YR 1976 MEAN 975.34 MAX 1011.62 MIN 915.91 AC-FT‡ -39,100
WTR YR 1977 MEAN 967.25 MAX 1012.04 MIN 911.95 AC-FT‡ +4,300

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14186600 FOSTER LAKE AT FOSTER, OR

LOCATION.--Lat 44°25'00", long 122°40'25", in NW¼NE¼ sec.27, T.13 S., R.1 E., Linn County, Hydrologic Unit 17090006, in Foster Dam on South Santiam River, 0.3 mi (0.5 km) above Wiley Creek, 0.5 mi (0.8 km) north of Foster, and at mile 37.7 (60.7 km).

DRAINAGE AREA.--492 mi^2 (1,274 km^2).

PERIOD OF RECORD.--December 1966 to current year. Prior to October 1971, published as Foster Reservoir at Foster.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by rockfill embankment with an impervious core and ogee spillway completed in 1966 by Corps of Engineers; controlled storage began in November 1966. Total capacity, 60,780 acre-ft (74.9 hm^3) and usable capacity 33,210 acre-ft (40.9 hm^3) between elevations 609.0 ft (185.52 m), proposed lower limit of operation, and 641.0 ft (195.38 m), top of spillway gates. Reservoir used for reregulation of water released from Green Peter Reservoir, flood control, power development, pollution abatement, and other purposes. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 60,090 acre-ft (74.1 hm^3) Sept. 17, 1968, elevation, 640.45 ft (195.209 m); minimum, 26,390 acre-ft (32.8 hm^3) Nov. 15, 16, 1971, elevation, 607.85 ft (185.273 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 57,540 acre-ft (70.9 hm^3) Sept. 16, elevation, 638.38 ft (194.578 m); minimum, 29,890 acre-ft (36.9 hm^3) Nov. 21, elevation, 611.68 ft (186.440 m).

Capacity table (elevation, in feet, and total contents, in acre-ft)

607	25,880	630	47,860
610	28,430	635	53,510
615	32,870	640	59,530
620	37,570	641	60,780
625	42,550		

ELEVATION, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	637.14	621.34	613.09	612.98	612.98	619.23	635.20	636.60	637.27	637.07	637.30	637.23
2	637.18	620.82	613.29	613.02	612.96	620.49	635.23	636.69	637.21	637.23	637.08	636.97
3	637.21	620.13	612.95	613.03	612.96	622.23	635.19	636.69	637.26	637.15	637.14	636.83
4	637.21	619.33	612.93	613.04	612.97	623.33	635.24	637.14	637.08	637.07	637.16	636.83
5	637.23	618.90	613.01	613.11	612.95	624.01	635.29	636.88	637.08	636.97	637.19	636.82
6	637.25	618.12	613.05	613.13	612.93	624.76	635.34	637.09	636.81	636.95	637.22	636.92
7	637.21	617.63	613.04	613.11	612.91	626.64	635.27	637.03	637.19	636.91	637.22	636.99
8	637.21	617.09	613.08	613.08	612.89	629.81	635.02	636.97	637.27	636.87	637.19	637.05
9	637.20	616.46	613.00	613.02	612.87	630.95	635.11	636.70	637.21	636.84	637.04	637.10
10	637.19	615.59	612.97	613.02	613.02	631.31	635.06	636.63	637.13	636.81	637.11	637.13
11	637.18	616.23	613.05	613.00	612.97	631.67	635.08	637.23	637.21	636.75	637.14	637.19
12	637.16	615.60	613.05	612.96	612.94	631.95	635.12	636.96	637.02	636.70	637.14	637.25
13	637.17	614.80	613.01	613.05	612.92	632.24	635.16	637.36	637.01	636.76	637.12	637.36
14	637.19	613.82	612.98	612.93	612.93	632.51	635.29	637.26	637.33	636.81	637.12	637.28
15	637.21	613.51	612.92	612.98	612.90	632.87	635.41	637.00	637.34	636.89	637.12	637.22
16	637.23	613.45	612.96	612.96	612.84	633.18	635.49	637.68	637.32	636.93	637.12	638.20
17	637.23	613.54	613.12	612.94	612.78	633.38	635.60	637.28	637.27	637.00	637.12	637.47
18	636.48	613.49	613.13	612.87	612.94	633.49	635.67	637.31	637.18	637.07	637.12	637.01
19	634.76	613.30	613.07	613.05	612.89	633.72	635.68	637.16	637.08	637.00	637.15	637.19
20	633.03	613.03	613.10	613.05	612.88	633.81	635.79	636.90	636.95	637.03	637.13	637.39
21	631.21	613.39	613.03	612.99	613.00	633.89	635.90	636.76	636.95	637.06	637.14	637.35
22	629.27	613.48	612.98	612.89	613.60	634.06	636.00	636.80	636.93	637.13	637.18	637.13
23	628.06	613.30	612.99	612.96	614.14	634.18	636.04	636.89	636.85	637.18	637.28	637.14
24	626.87	613.12	612.99	612.82	614.36	634.20	636.03	637.11	636.86	637.24	636.24	637.24
25	625.96	613.07	613.05	612.59	614.38	634.30	636.03	637.27	637.35	637.31	636.53	636.95
26	624.72	613.01	613.18	612.69	614.72	634.41	636.08	637.14	637.34	637.24	636.96	637.13
27	623.98	613.04	613.01	612.72	615.02	634.49	636.21	637.30	637.32	637.04	637.06	636.92
28	623.32	613.08	612.88	612.92	617.47	634.57	636.30	637.30	637.26	637.09	637.14	637.13
29	623.67	613.06	613.16	612.73	---	634.69	636.40	637.48	637.23	637.14	637.22	637.36
30	622.35	613.07	613.18	612.74	---	634.82	636.50	637.42	637.16	637.18	637.08	637.37
31	621.71	---	613.09	612.96	---	635.08	---	637.18	---	637.26	637.33	---
MEAN	632.83	615.26	613.04	612.95	613.40	630.98	635.59	637.07	637.15	637.02	637.10	637.17
MAX	637.25	621.34	613.29	613.13	617.47	635.08	636.50	637.68	637.35	637.31	637.33	638.20
MIN	621.71	613.01	612.88	612.59	612.78	619.23	635.02	636.60	636.81	636.70	636.24	636.82
(†)	39,240	31,130	31,150	31,030	35,160	53,600	55,280	56,090	56,060	56,180	56,270	56,320
(‡)	-16,840	-8,110	+20	-120	+4,130	+18,440	+1,680	+810	-30	+120	+90	+50

CAL YR 1976 MEAN 626.21 MAX 637.92 MIN 612.48 AC-FT‡ -320
WTR YR 1977 MEAN 628.39 MAX 638.20 MIN 612.59 AC-FT‡ -240

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14187100 WILEY CREEK AT FOSTER, OR

LOCATION.--Lat 44°23'55", long 122°39'35", in SW¼NW¼ sec.35, T.13 S., R.1 E., Linn County, Hydrologic Unit 17090006, on right bank 1.5 mi (2.4 km) downstream from Jackson Creek, 1.0 mi (1.6 km) southeast of Foster, and at mile 1.4 (2.3 km).

DRAINAGE AREA.--62.3 mi^2 (161.4 km^2).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 590 ft (179.8 m), from topographic map. Prior to May 2, 1974, at present site at datum 5.00 ft (1.524 m) lower.

REMARKS.--Records fair. No regulation or diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,320 ft^3/s (179 m^3/s) Jan. 15, 1974, gage height, 9.28 ft (2.829 m); minimum, 3.1 ft^3/s (0.088 m^3/s) Oct. 19, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 916 ft^3/s (25.9 m^3/s) Mar. 8, 9, gage height, 6.22 ft (1.896 m), no peak above base of 2,300 ft^3/s (65.1 m^3/s); minimum, 6.8 ft^3/s (0.19 m^3/s) Aug. 17-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	81	33	40	41	406	283	114	257	39	16	24
2	18	68	32	55	39	325	267	218	212	38	15	21
3	21	50	31	56	37	411	239	449	196	37	14	20
4	20	43	31	51	37	343	239	438	245	40	13	21
5	19	39	31	47	37	264	260	411	227	37	13	21
6	18	37	31	41	37	254	286	358	198	37	12	20
7	18	34	30	40	36	537	307	314	172	36	12	18
8	16	32	47	36	35	725	366	273	151	33	11	16
9	16	31	70	37	34	680	321	242	133	32	11	15
10	16	30	50	43	34	525	267	406	131	33	9.3	15
11	17	28	42	41	33	427	239	449	114	32	8.9	14
12	17	28	40	42	33	411	215	358	106	31	8.4	14
13	17	27	37	97	37	386	239	300	97	31	7.6	13
14	16	33	36	103	37	328	221	257	89	30	7.6	13
15	15	81	36	81	34	270	204	277	85	28	8.0	13
16	15	82	34	71	33	227	215	343	81	27	8.0	14
17	15	70	34	64	32	193	190	595	74	26	7.6	14
18	14	99	33	59	31	182	169	569	71	28	6.8	15
19	14	75	32	56	31	182	153	432	68	29	6.8	24
20	14	62	31	52	31	180	142	343	65	26	6.8	36
21	14	55	30	50	46	174	136	304	66	24	8.0	33
22	14	49	30	47	100	172	130	257	61	24	9.3	28
23	14	45	33	46	89	160	128	260	56	21	9.8	41
24	18	41	33	43	88	224	130	257	52	21	59	112
25	87	41	33	41	81	245	140	218	50	21	33	66
26	54	39	56	41	103	218	138	304	48	22	33	55
27	37	37	73	40	154	336	118	332	43	21	27	47
28	31	36	56	39	489	336	111	358	42	19	24	63
29	31	34	51	38	---	325	103	314	41	19	36	56
30	31	34	46	38	---	297	99	267	41	19	39	49
31	31	---	42	39	---	267	---	227	---	18	31	---
TOTAL	694	1441	1224	1574	1849	10010	6055	10244	3272	879	511.9	911
MEAN	22.4	48.0	39.5	50.8	66.0	323	202	330	109	28.4	16.5	30.4
MAX	87	99	73	103	489	725	366	595	257	40	59	112
MIN	14	27	30	36	31	160	99	114	41	18	6.8	13
CFSM	.36	.77	.63	.82	1.06	5.19	3.24	5.30	1.75	.46	.27	.49
IN.	.41	.86	.73	.94	1.10	5.98	3.62	6.12	1.95	.52	.31	.54
AC-FT	1380	2860	2430	3120	3670	19850	12010	20320	6490	1740	1020	1810

CAL YR 1976 TOTAL 64448.0 MEAN 176 MAX 2420 MIN 13 CFSM 2.83 IN 38.48 AC-FT 127800
WTR YR 1977 TOTAL 38664.9 MEAN 106 MAX 725 MIN 6.8 CFSM 1.70 IN 23.09 AC-FT 76690

14187200 SOUTH SANTIAM RIVER NEAR FOSTER, OR

LOCATION.--Lat 44°24'45", long 122°41'15", in SE¼NE¼ sec.28, T.13 S., R.1 E., Linn County, Hydrologic Unit 17090006, on left bank 0.6 mi (1.0 km) downstream from Wiley Creek and at mile 37.0 (59.5 km).

DRAINAGE AREA.--557 mi^2 (1,443 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1973 to current year. Records for October 1966 to July 1973 (published as South Santiam River at Foster, station 14186700) at site 0.5 mi (0.8 km) upstream not equivalent owing to inflow between sites.

GAGE.--Water-stage recorder. Altitude of gage is 560 ft (171 m), from topographic map.

REMARKS.--Water-discharge records excellent. Flow regulated since October 1966 by Green Peter Lake (see station 14186100) and since December 1966 by Foster Lake (see station 14186600). No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft^3/s (479 m^3/s) Jan. 15, 1974, gage height, 16.07 ft (4.898 m); minimum, 425 ft^3/s (12.0 m^3/s) July 26, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,050 ft^3/s (200 m^3/s) May 17, gage height, 13.26 ft (4.042 m); minimum, 485 ft^3/s (13.7 m^3/s) Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1400	1960	1200	980	595	856	1840	1370	2620	931	750	922
2	1400	2770	1110	980	595	758	1700	1970	2370	922	750	912
3	1400	2770	1090	990	587	884	1460	2980	1920	922	732	912
4	1400	1920	1200	847	580	793	1420	3900	3420	922	912	912
5	1400	1690	1130	724	572	724	1690	4900	3170	922	912	903
6	1390	1650	1160	724	565	716	1960	4230	2340	941	912	912
7	1420	1520	1170	716	572	1060	2250	4060	1920	941	912	912
8	1420	1520	1240	716	565	1700	2760	3780	2020	941	793	922
9	1430	1450	1390	707	572	2740	2070	3080	1820	931	856	912
10	1430	1550	1300	716	572	2130	1690	3800	1760	931	875	912
11	1430	1650	1200	724	580	1550	1420	3570	1600	931	912	912
12	1430	1540	1230	724	580	1730	1320	3130	1440	931	912	912
13	1420	1570	1240	793	595	1430	1460	1950	1130	922	912	912
14	1400	1640	1240	802	587	1160	1290	1510	1030	922	912	903
15	1400	1610	1220	776	580	893	1200	1740	1020	922	922	893
16	1420	1740	1180	750	580	793	1250	2920	1010	922	912	893
17	1420	2180	1110	741	572	784	1110	6020	1000	922	912	893
18	1860	2330	1210	732	557	884	1020	5360	990	922	912	903
19	2400	2310	1230	724	557	980	960	4660	990	931	903	903
20	2430	2100	1180	716	557	1170	866	4350	980	931	903	922
21	2480	1970	1130	716	572	1010	838	3420	980	922	903	922
22	2510	2070	1130	707	565	990	866	3130	970	912	903	1020
23	1800	2190	990	707	543	1320	990	3220	960	912	903	1180
24	1800	2190	990	707	550	1330	1170	2980	970	903	951	1610
25	1970	1310	980	650	550	1170	1350	1930	960	903	931	1560
26	2060	1250	1120	587	572	1030	1290	2450	951	912	931	1490
27	1960	1210	1120	587	587	1820	1090	2920	951	903	931	1920
28	1840	1220	1010	587	960	1850	1050	3190	941	903	922	2160
29	1930	1220	1000	587	---	1590	1010	3100	941	912	941	2140
30	2150	1210	990	595	---	1370	1130	2740	931	903	941	2500
31	1740	---	980	595	---	1200	---	2690	---	893	931	---
TOTAL	52940	53310	35470	22607	16419	38415	41520	101050	44105	28538	27704	34719
MEAN	1708	1777	1144	729	586	1239	1384	3260	1470	921	894	1157
MAX	2510	2770	1390	990	960	2740	2760	6020	3420	941	951	2500
MIN	1390	1210	980	587	543	716	838	1370	931	893	732	893
AC-FT	105000	105700	70350	44840	32570	76200	82350	200400	87480	56610	54950	68870

CAL YR 1976 TOTAL 856345 MEAN 2340 MAX 15000 MIN 471 AC-FT 1699000
WTR YR 1977 TOTAL 496797 MEAN 1361 MAX 6020 MIN 543 AC-FT 985400

14187200 SOUTH SANTIAM RIVER NEAR FOSTER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: July 1973 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 15.5°C July 23-25, 1975; minimum, 3.0°C Jan. 7, 12, 13, 1974, Feb. 6, 1976.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 14.0°C June 24, 26; minimum, 4.0°C Jan. 26-28, 30.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.5	10.5	10.5	10.0	9.0	8.5	7.0	6.0	6.5	5.0	7.0	5.5
2	11.5	10.5	10.5	10.0	9.0	8.0	7.0	6.5	6.0	5.0	7.0	5.5
3	11.0	10.5	10.0	9.5	9.0	8.0	7.0	6.0	6.0	4.5	7.0	5.5
4	11.5	10.5	10.0	10.0	8.5	8.0	7.0	6.0	6.0	4.5	8.0	5.5
5	11.5	10.5	10.0	9.5	8.5	8.0	6.5	5.0	6.0	5.0	8.0	5.0
6	12.0	10.5	10.0	9.5	8.5	8.0	5.5	5.0	6.5	5.0	8.0	5.5
7	12.0	10.5	10.0	9.5	9.0	8.0	5.5	4.5	6.0	5.0	8.0	6.5
8	11.0	10.5	10.0	10.0	9.0	8.0	5.5	5.0	6.0	5.0	8.0	6.5
9	11.0	10.5	10.0	9.5	8.5	8.0	5.5	4.5	7.0	5.5	7.5	5.5
10	11.0	10.5	10.0	9.5	8.5	7.5	5.5	4.5	7.0	6.0	6.5	5.5
11	11.5	10.5	10.0	9.5	8.0	7.5	5.5	5.0	7.5	6.0	7.5	5.0
12	11.0	10.0	10.0	9.5	8.0	7.5	6.5	5.0	7.5	6.5	8.0	6.0
13	11.0	10.0	10.0	9.0	8.5	7.5	6.0	5.5	8.0	7.0	7.0	5.0
14	11.0	10.0	10.0	9.5	8.5	7.5	6.0	4.5	7.5	6.5	7.0	5.0
15	11.0	10.0	10.5	10.0	8.5	8.0	6.5	5.0	8.0	6.5	8.0	5.0
16	11.0	10.0	10.5	10.0	8.5	8.0	6.5	5.0	8.5	7.0	7.5	5.0
17	12.0	10.0	11.0	10.5	8.5	7.5	6.5	5.5	8.5	7.0	7.0	5.5
18	12.5	11.0	10.5	10.0	8.5	8.0	7.0	6.0	8.0	7.0	7.0	6.0
19	11.0	10.5	10.5	10.0	8.0	7.5	7.0	6.0	8.0	6.5	7.0	6.5
20	11.0	10.5	10.0	9.5	8.0	7.5	6.5	5.5	8.0	7.0	8.0	5.5
21	11.0	10.0	10.5	9.5	7.5	7.0	7.0	5.5	8.0	7.0	8.0	5.5
22	11.0	10.5	10.0	10.0	7.5	7.0	6.5	5.5	8.0	6.5	8.5	6.0
23	10.5	10.0	10.0	9.5	8.0	7.0	6.0	4.5	7.0	5.5	7.5	6.5
24	11.0	10.0	10.5	9.5	7.5	6.5	6.0	4.5	7.0	6.0	8.0	6.0
25	10.5	9.5	10.5	10.0	8.0	7.0	5.5	4.5	7.0	6.0	8.0	6.0
26	10.5	9.5	9.5	9.0	8.0	7.0	5.5	4.0	7.5	6.0	9.0	6.5
27	10.0	9.5	9.5	8.5	8.0	7.0	5.5	4.0	8.5	7.0	7.5	6.0
28	10.0	9.5	9.0	8.5	7.5	6.5	5.5	4.0	8.5	6.5	7.0	5.5
29	10.0	9.5	9.0	8.0	7.5	7.0	5.5	4.5	---	---	7.5	6.0
30	10.0	9.5	9.0	8.0	7.5	6.5	5.5	4.0	---	---	8.5	5.5
31	10.5	10.0	---	---	7.0	6.0	6.0	5.0	---	---	7.0	6.0
MONTH	12.5	9.5	11.0	8.0	9.0	6.0	7.0	4.0	8.5	4.5	8.5	5.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	6.5	10.0	9.5	12.0	10.5	13.5	11.0	10.5	9.0	13.0	11.0
2	8.5	6.0	11.0	10.0	11.5	10.0	12.5	11.0	10.5	8.5	12.5	11.5
3	9.0	6.0	10.5	9.5	11.5	10.0	12.0	11.0	11.0	9.0	12.5	12.0
4	10.0	6.5	10.0	9.0	11.5	10.0	12.0	10.5	11.0	9.0	12.5	12.5
5	10.0	7.5	9.5	8.5	12.5	10.5	12.0	10.5	11.0	9.0	12.5	12.0
6	10.5	7.5	10.0	8.5	13.5	11.5	12.5	10.5	11.0	9.0	13.0	12.0
7	10.0	8.0	10.0	8.5	13.0	11.5	12.5	10.5	11.5	9.5	12.5	11.5
8	9.0	7.5	10.5	9.0	12.5	11.0	12.5	10.5	11.5	9.5	13.0	11.5
9	9.0	7.5	10.5	9.5	12.5	10.5	12.0	11.0	11.5	9.5	13.0	12.0
10	9.0	7.0	10.0	9.0	12.5	10.5	12.5	11.0	12.0	10.0	12.5	12.0
11	9.5	7.5	9.5	8.5	12.0	11.0	12.5	10.5	11.5	10.0	13.0	12.0
12	10.0	7.5	9.5	8.0	13.0	10.5	11.5	10.5	11.5	9.5	13.0	12.0
13	9.0	7.5	10.5	8.5	13.0	10.5	12.0	10.0	11.5	10.0	13.0	12.5
14	9.5	7.0	10.5	9.0	12.5	11.0	12.0	10.0	11.0	10.0	13.0	12.0
15	9.5	8.0	9.5	8.5	13.0	10.5	12.0	10.0	11.5	10.0	12.5	12.0
16	10.0	7.5	9.5	8.5	13.5	10.5	12.0	10.0	12.0	10.0	12.5	11.5
17	9.5	7.0	9.5	8.5	13.0	11.0	11.5	10.5	12.0	10.0	12.5	12.0
18	9.0	7.0	9.5	8.5	13.0	11.5	11.0	10.0	12.0	10.5	12.5	12.0
19	9.5	7.0	11.0	9.0	13.0	11.5	11.5	9.5	12.0	10.5	13.0	12.0
20	9.5	7.5	10.0	9.5	12.5	11.5	11.5	9.5	11.5	10.5	13.0	12.0
21	10.0	8.5	10.5	9.5	13.5	11.5	11.0	9.5	11.5	11.0	13.0	11.5
22	10.5	8.5	10.0	9.0	13.5	12.0	12.0	9.5	12.0	11.0	12.5	10.5
23	11.0	9.0	9.5	9.5	13.5	11.5	11.5	9.5	12.0	11.0	12.5	11.5
24	10.5	9.5	11.0	9.0	14.0	11.0	11.0	9.5	12.5	12.0	12.5	11.5
25	10.5	9.5	10.5	9.0	13.0	11.5	10.5	9.5	12.5	11.0	12.5	11.5
26	10.5	9.0	10.5	9.5	14.0	11.0	11.0	9.5	12.0	11.0	12.5	10.5
27	10.5	8.5	10.0	9.5	13.5	11.0	11.0	9.5	12.0	11.5	12.5	11.0
28	10.0	9.0	10.5	9.0	13.5	11.0	10.5	9.5	12.0	11.5	12.5	11.5
29	10.5	9.5	11.5	9.0	13.0	11.0	10.5	9.0	12.5	11.5	12.0	11.0
30	11.0	9.5	10.5	10.0	13.5	11.0	11.0	9.0	13.0	12.0	12.0	11.0
31	---	---	11.5	10.0	---	---	11.0	9.0	12.5	11.0	---	---
MONTH	11.0	6.0	11.5	8.0	14.0	10.0	13.5	9.0	13.0	8.5	13.0	10.5

14187500 SOUTH SANTIAM RIVER AT WATERLOO, OR

LOCATION.--Lat 44°29'55", long 122°49'20", in SW¼NW¼ sec.28, T.12 S., R.1 W., Linn County, Hydrologic Unit 17090006, on left bank 0.1 mi (0.2 km) downstream from highway bridge at Waterloo, 2.1 mi (3.4 km) upstream from Hamilton Creek, and at mile 23.3 (37.5 km).

DRAINAGE AREA.--640 mi^2 (1,658 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1905 to March 1907, October 1910 to December 1911 (gage heights only January to December 1911), July 1923 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as South Fork of Santiam River at Waterloo 1905-7, 1910-11.

REVISED RECORDS.--WSP 1248: 1907, 1924-30, 1932.

GAGE.--Water-stage recorder. Datum of gage is 370.39 ft (112.895 m) above mean sea level. Prior to Dec. 31, 1911, nonrecording gage at site 0.5 mi (0.8 km) downstream at datum about 5.0 ft (1.52 m) lower. July 1, 1923, to Nov. 12, 1934, nonrecording gage, at present site and datum.

REMARKS.--Water-discharge records excellent except those for period Nov. 17 to Dec. 2, which are good. Flow regulated since October 1966 by Green Peter Lake (see station 14186100) and since December 1966 by Foster Lake (see station 14186600). No diversion above station.

AVERAGE DISCHARGE.--55 years (water years 1906, 1924-77), 2,937 ft^3/s (83.18 m^3/s), 2,128,000 acre-ft/yr (2.62 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,200 ft^3/s (2,696 m^3/s) Dec. 22, 1964, gage height, 24.50 ft (7.468 m); minimum, 61 ft^3/s (1.73 m^3/s) Oct. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,230 ft^3/s (205 m^3/s) May 17, gage height, 6.42 ft (1.957 m); minimum, 523 ft^3/s (14.8 m^3/s) Feb. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1440	1970	1200	951	573	1270	1910	1440	2740	910	702	900
2	1450	2770	1000	962	573	1040	1960	2080	2460	910	702	880
3	1450	2860	1080	973	564	1220	1620	3200	2030	910	673	890
4	1440	2090	1170	880	547	1050	1520	4120	3270	920	870	890
5	1440	1750	1160	711	539	910	1810	5150	3410	910	870	880
6	1440	1710	1150	692	547	880	2050	4500	2560	930	880	880
7	1450	1560	1160	692	547	1350	2370	4320	1970	930	880	880
8	1450	1550	1220	683	539	2110	2920	3980	2080	920	750	890
9	1460	1480	1400	673	547	3390	2350	3280	1880	910	800	880
10	1470	1530	1330	692	547	2750	1900	4140	1780	910	820	890
11	1460	1660	1210	692	555	1990	1570	3900	1640	900	860	890
12	1460	1570	1220	692	555	2290	1450	3520	1500	900	870	880
13	1460	1590	1220	790	564	1930	1560	2270	1170	890	870	880
14	1440	1650	1220	850	564	1510	1450	1680	1020	890	880	880
15	1440	1680	1210	780	555	1200	1300	1840	1010	890	880	870
16	1450	1790	1160	750	555	962	1380	2940	995	890	870	870
17	1460	2300	1110	740	555	951	1230	5870	962	880	870	870
18	1760	2400	1150	721	531	1050	1120	5750	962	890	870	880
19	2500	2300	1200	711	531	1080	1040	4890	962	890	850	890
20	2530	2100	1150	692	539	1350	951	4440	951	890	860	910
21	2580	2000	1090	692	564	1200	890	3650	951	890	860	910
22	2610	2100	1090	692	627	1080	910	3230	940	870	860	962
23	1960	2200	984	683	600	1460	1010	3300	930	870	860	1160
24	1870	2200	940	683	627	1600	1200	3110	930	870	962	1590
25	2030	1300	951	645	600	1380	1380	2200	940	870	920	1600
26	2140	1300	1080	555	636	1200	1400	2400	930	870	930	1500
27	2050	1200	1150	555	711	1870	1160	2940	920	870	910	1900
28	1910	1200	995	564	1320	2120	1110	3250	920	860	910	2170
29	1910	1200	984	564	---	1850	1060	3160	910	870	920	2210
30	2230	1200	962	564	---	1610	1120	2870	920	860	930	2510
31	1850	---	951	573	---	1350	---	2700	---	850	910	---
TOTAL	54590	54210	34897	22097	16712	47003	44701	106120	44643	27620	26599	34192
MEAN	1761	1807	1126	713	597	1516	1490	3423	1488	891	858	1140
MAX	2610	2860	1400	973	1320	3390	2920	5870	3410	930	962	2510
MIN	1440	1200	940	555	531	880	890	1440	910	850	673	870
AC-FT	108300	107500	69220	43830	33150	93230	88660	210500	88550	54780	52760	67820

CAL YR 1976 TOTAL 889599 MEAN 2431 MAX 17000 MIN 437 AC-FT 1765000
WTR YR 1977 TOTAL 513384 MEAN 1407 MAX 5870 MIN 531 AC-FT 1018000

14187500 SOUTH SANTIAM RIVER AT WATERLOO, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1963 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26.0°C Aug. 4, 1966; minimum, 1.5°C Dec. 18-20, 1965.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 18.5°C Aug. 1, 2; minimum, 3.0°C Jan. 9.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.0	10.5	10.5	10.0	8.5	7.5	6.5	6.0	6.5	5.5	7.5	6.0
2	12.0	10.5	10.5	10.0	8.5	7.5	7.0	6.5	6.0	5.0	7.0	6.5
3	12.0	10.0	10.5	9.5	8.5	7.5	6.5	5.5	6.0	4.5	7.5	6.0
4	12.5	9.5	10.5	9.5	8.0	7.5	6.5	6.0	6.0	5.0	8.0	6.5
5	12.5	9.5	10.0	9.5	8.0	8.0	6.5	4.0	5.5	5.0	8.5	6.5
6	13.0	10.0	10.5	9.5	8.0	7.5	4.5	3.5	6.5	5.5	8.0	7.0
7	13.5	10.0	10.5	9.0	9.0	7.5	4.5	3.5	6.0	5.5	8.0	7.0
8	12.0	10.0	11.0	9.5	9.0	8.5	4.0	3.5	6.0	5.5	7.5	7.0
9	12.0	10.0	10.5	9.0	8.5	8.0	4.5	3.0	7.0	5.5	7.0	6.5
10	11.5	10.0	10.5	9.0	8.0	7.5	6.0	4.5	8.0	6.5	8.0	6.0
11	12.5	10.5	10.5	9.5	8.0	7.5	6.0	5.5	7.5	6.5	8.5	6.0
12	12.0	10.0	10.5	9.0	7.5	7.0	6.5	5.5	8.0	7.0	8.0	6.5
13	12.0	9.5	10.0	8.5	7.5	7.0	6.5	6.0	8.0	7.5	7.5	5.5
14	12.0	9.5	10.5	9.5	8.0	7.0	6.0	5.0	8.0	7.0	7.0	5.5
15	12.0	9.5	10.5	10.0	8.5	7.5	7.0	5.5	8.0	6.5	8.5	6.0
16	12.0	9.5	11.0	10.5	8.5	7.5	6.5	5.5	8.5	7.0	8.5	6.0
17	12.0	9.0	11.0	10.5	8.5	7.0	6.5	5.5	9.5	8.0	8.0	6.5
18	13.0	8.5	10.5	10.0	8.5	8.0	6.5	6.0	8.5	7.5	7.5	7.0
19	11.5	9.5	10.0	9.5	8.0	7.5	7.0	6.0	8.5	7.0	8.5	7.0
20	12.0	9.5	10.0	9.5	7.5	7.0	6.5	5.5	8.0	7.5	8.0	6.0
21	11.5	9.5	10.5	9.5	7.0	6.5	6.5	5.5	7.5	7.0	9.5	6.5
22	11.5	9.5	10.0	10.0	7.0	7.0	6.5	6.0	7.5	7.0	10.0	7.0
23	11.0	9.0	10.0	9.5	8.0	7.0	5.5	4.5	7.0	6.0	9.5	7.0
24	10.5	9.5	10.5	9.5	7.5	6.5	5.5	4.5	6.5	6.0	9.5	7.0
25	10.5	9.5	10.5	9.5	8.0	7.0	5.0	4.0	6.5	6.0	10.0	7.0
26	11.0	9.5	9.5	8.5	8.0	7.5	4.5	3.5	7.5	6.5	8.5	7.0
27	11.0	9.0	8.5	7.5	8.0	7.5	5.0	4.0	8.5	7.0	8.5	6.5
28	10.5	9.0	8.5	7.5	8.0	7.0	5.0	4.0	8.0	7.0	7.5	6.5
29	10.0	9.5	8.5	7.5	7.5	7.0	4.5	4.0	---	---	8.5	6.5
30	10.5	9.5	8.5	7.5	7.5	6.5	5.0	4.0	---	---	9.5	6.5
31	11.0	9.5	---	---	6.5	6.0	6.5	5.0	---	---	8.5	6.5
MONTH	13.5	8.5	11.0	7.5	9.0	6.0	7.0	3.0	9.5	4.5	10.0	5.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.5	7.0	12.0	9.5	12.5	10.0	16.0	13.5	18.5	14.5	15.5	12.0
2	9.5	6.5	12.5	9.5	13.0	9.0	16.0	13.0	18.5	14.5	14.5	12.5
3	10.5	6.5	11.0	9.5	11.0	9.5	15.0	12.5	18.0	14.5	14.5	13.0
4	11.0	7.0	11.0	9.5	11.5	10.5	14.5	12.5	17.0	13.5	14.5	13.0
5	12.0	7.5	10.5	9.0	14.5	10.5	14.5	12.0	17.5	13.5	15.0	13.0
6	12.0	7.5	11.5	8.5	14.5	10.5	16.5	12.5	17.5	14.0	16.0	12.0
7	12.0	8.0	11.0	8.0	15.0	11.0	17.0	13.0	17.5	14.0	15.5	12.5
8	10.0	8.0	12.0	8.5	14.5	10.5	17.0	13.0	18.0	14.0	15.0	12.0
9	10.0	8.0	12.0	8.0	14.0	10.0	16.0	13.5	18.0	14.0	15.5	12.0
10	10.5	7.5	9.5	9.0	14.5	10.5	17.0	12.5	18.0	14.5	15.5	12.0
11	11.0	8.0	10.5	8.5	12.0	11.0	17.5	13.5	18.0	14.5	15.5	12.0
12	11.5	7.5	12.0	8.0	15.0	10.5	16.5	13.5	17.5	14.0	15.5	12.0
13	11.0	8.5	12.0	8.5	15.5	11.0	16.5	12.0	17.5	14.0	15.5	12.5
14	11.0	7.0	11.5	9.0	14.0	11.5	17.0	13.0	16.5	13.5	14.5	12.5
15	10.5	8.5	10.0	8.5	14.5	11.0	17.5	13.5	17.0	13.0	13.5	12.0
16	10.5	8.5	10.0	8.5	16.0	11.5	17.0	13.5	17.5	14.0	14.0	11.5
17	11.0	7.5	9.5	8.5	16.0	12.5	16.0	13.0	17.5	14.0	13.5	12.0
18	10.5	7.5	10.5	8.5	15.0	12.5	15.5	13.5	16.5	14.0	13.0	12.0
19	11.5	7.5	12.0	8.5	15.5	12.5	17.0	12.5	16.5	13.5	13.0	12.0
20	11.0	8.0	11.0	8.5	14.5	12.0	17.0	13.0	15.5	13.5	13.0	11.5
21	11.0	9.5	11.5	9.0	16.5	11.5	17.0	13.5	14.0	13.5	14.0	11.5
22	12.0	9.0	11.0	8.5	16.0	13.5	17.5	13.5	16.5	13.0	13.5	11.0
23	13.0	10.0	10.5	8.5	17.0	12.5	16.5	14.0	15.5	13.0	13.0	11.5
24	13.0	9.5	12.5	8.5	17.0	13.0	17.0	13.5	15.0	13.5	13.0	11.0
25	12.0	9.5	12.0	8.5	16.5	13.5	15.5	13.0	14.0	12.5	13.5	11.5
26	13.0	9.0	11.5	9.0	17.0	13.0	16.5	13.0	15.0	12.5	13.5	10.5
27	13.0	8.5	11.0	8.5	17.0	13.0	17.0	13.0	14.5	12.5	12.0	11.0
28	12.5	9.5	12.0	9.0	17.5	13.0	15.5	13.5	14.5	13.0	12.5	11.0
29	13.0	9.5	13.0	8.5	16.5	13.5	16.5	12.5	14.0	13.0	12.0	11.0
30	13.0	10.0	11.5	9.0	17.0	13.0	17.5	13.5	16.0	12.5	12.5	11.0
31	---	---	12.5	9.5	---	---	17.5	13.5	15.0	12.0	---	---
MONTH	13.0	6.5	13.0	8.0	17.5	9.0	17.5	12.0	18.5	12.0	16.0	10.5

14188800 THOMAS CREEK NEAR SCIO, OR

LOCATION.--Lat 44°42'42", long 122°45'55", in SE¼SE¼ sec.11, T.10 S., R.1 W., Linn County, Hydrologic Unit 17090006, on left bank 0.3 mi (0.5 km) upstream from bridge on State Highway 226, 1.6 mi (2.6 km) upstream from Mill Creek, 4.2 mi (6.8 km) east of Scio, and at mile 14.6 (23.5 km).

DRAINAGE AREA.--109 mi^2 (282 km^2).

PERIOD OF RECORD.--October 1962 to current year.

REVISED RECORDS.--WRD Oreg. 1971: 1965(P), 1966(P), 1969(P).

GAGE.--Water-stage recorder. Datum of gage is 380.84 ft (116.080 m) above mean sea level.

REMARKS.--Records good. No regulation. Several small diversions for irrigation above station.

AVERAGE DISCHARGE.--15 years, 503 ft^3/s (14.24 m^3/s), 62.67 in/yr (1,592 mm/yr), 364,400 acre-ft/yr (449 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,400 ft^3/s (776 m^3/s) Dec. 22, 1964, gage height, 18.44 ft (5.621 m), from rating curve extended above 7,200 ft^3/s (204 m^3/s), on basis of slope-area measurement of peak flow; maximum gage height, 19.58 ft (5.968 m) Jan. 21, 1972, backwater from debris; minimum discharge, 7.8 ft^3/s (0.22 m^3/s) Aug. 20, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,160 ft^3/s (61.2 m^3/s) Mar. 8, gage height, 6.37 ft (1.942 m), no peak above base of 3,500 ft^3/s (99.1 m^3/s); minimum, 10 ft^3/s (0.28 m^3/s) Aug. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	412	66	150	78	1230	437	294	403	73	27	69
2	39	222	63	200	72	867	413	505	345	70	23	55
3	50	152	60	180	70	806	443	848	347	70	22	73
4	39	120	59	150	67	622	518	910	754	88	22	92
5	34	101	57	130	65	519	591	834	670	80	22	94
6	31	86	56	120	66	540	657	766	530	73	22	74
7	28	76	56	110	63	1320	610	653	440	65	23	60
8	25	69	76	105	61	1630	464	561	375	59	23	50
9	24	65	155	105	59	1700	397	564	335	56	20	45
10	25	61	106	110	62	1100	380	1080	305	60	18	41
11	25	57	90	130	84	835	400	861	277	56	17	39
12	25	54	82	220	73	1170	420	667	255	51	15	37
13	25	52	77	350	93	900	431	543	229	51	16	34
14	25	59	74	280	83	706	380	476	210	48	19	32
15	25	161	72	250	75	577	347	501	192	47	19	33
16	24	303	70	220	70	494	379	481	179	45	17	33
17	24	213	68	200	66	435	329	1080	165	44	15	32
18	24	278	70	180	63	418	299	924	155	53	15	34
19	24	198	66	160	61	474	273	696	145	50	17	57
20	23	162	62	150	62	427	259	574	138	42	21	181
21	24	138	59	130	101	399	259	518	137	39	25	221
22	24	122	58	120	230	454	259	449	126	36	19	170
23	24	110	67	110	218	485	274	415	118	36	62	223
24	33	100	70	100	239	425	294	382	107	39	55	432
25	161	96	77	95	245	480	318	342	104	35	96	309
26	111	86	299	90	312	775	329	481	100	37	67	231
27	68	79	392	75	504	629	276	486	91	34	35	177
28	54	75	250	65	1680	551	258	511	86	31	110	229
29	49	71	200	60	---	486	244	445	80	32	101	203
30	45	69	150	63	---	468	236	396	78	30	134	246
31	100	---	120	68	---	486	---	361	---	30	100	---
TOTAL	1269	3847	3227	4476	4922	22408	11174	18604	7476	1560	1197	3606
MEAN	40.9	128	104	144	176	723	372	600	249	50.3	38.6	120
MAX	161	412	392	350	1680	1700	657	1080	754	88	134	432
MIN	23	52	56	60	59	399	236	294	78	30	15	32
CFSM	.38	1.17	.95	1.32	1.62	6.63	3.41	5.51	2.28	.46	.35	1.10
IN.	.43	1.31	1.10	1.53	1.68	7.65	3.81	6.35	2.55	.53	.41	1.23
AC-FT	2520	7630	6400	8880	9760	44450	22160	36900	14830	3090	2370	7150

CAL YR 1976 TOTAL 133763 MEAN 365 MAX 4650 MIN 23 CFSM 3.35 IN 45.65 AC-FT 265300
WTR YR 1977 TOTAL 83766 MEAN 229 MAX 1700 MIN 15 CFSM 2.10 IN 28.59 AC-FT 166100

NOTE.--No gage-height record Dec. 28 to Feb. 1.

14189000 SANTIAM RIVER AT JEFFERSON, OR

LOCATION.--Lat 44°42'55", long 123°00'40", in SE¼ sec.11, T.10 S., R.3 W., Marion County, Hydrologic Unit 17090005, on right bank 350 ft (107 m) upstream from Southern Pacific railroad bridge at Jefferson, 2.1 mi (3.4 km) downstream from confluence of North and South Santiam Rivers, and at mile 9.62 (15.5 km).

DRAINAGE AREA.--1,790 mi^2 (4,640 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1905 to June 1906 (gage heights and discharge measurements only), October 1907 to September 1916, October 1939 to current year. Gage-height records collected at same site since 1907 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 904: Drainage area. WSP 1094: 1908, 1910, 1912, 1943. WSP 1248: 1911, 1915-16(M). WSP 1935: 1909.

GAGE.--Water-stage recorder. Datum of gage is 199.63 ft (60.847 m) above mean sea level. Prior to Sept. 22, 1940, nonrecording gages at sites within 350 ft (107 m) downstream at datum 3.00 ft (0.914 m) higher.

REMARKS.--Water-discharge records excellent. Flow regulated since 1953 by Detroit Lake (see station 14180500), since 1966 by Green Peter Lake (see station 14186100) and by Foster Lake (see station 14186600). Salem Canal diverts from North Santiam River at Stayton for irrigation and power; most of this water reaches Willamette River by way of Mill Creek at Salem. Stayton Canal diverts from North Santiam River at Stayton for irrigation of lands near West Stayton; some return flow reaches North Santiam River above station. Albany power canal diverts from South Santiam River at Lebanon; return flow reaches Willamette River at Albany.

AVERAGE DISCHARGE.--47 years (water years 1908-16, 1940-77), 7,839 ft^3/s (222.0 m^3/s), 5,679,000 acre-ft/yr (7.00 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 197,000 ft^3/s (5,580 m^3/s) Dec. 22, 1964, gage height, 24.22 ft (7.382 m); minimum observed, 260 ft^3/s (7.36 m^3/s) Aug. 15-22, Aug. 24 to Sept. 2, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood stage of 25.0 ft (7.62 m) was reached in December 1861, and 23.4 ft (7.13 m) in February 1890 (information from Corps of Engineers). On Nov. 21, 1921, the stage reached 19.5 ft (5.94 m) at gage on railroad bridge 350 ft (107 m) downstream, corresponding gage height at present site and datum, 24.4 ft (7.44 m), from curve of relation, discharge, 202,000 ft^3/s (5,720 [illegible]/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,000 ft^3/s (368 m^3/s) May 17, gage height, 7.74 ft (2.359 m); minimum, 1,180 ft^3/s (33.4 m^3/s) Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3710	5420	2400	2440	1570	7640	4620	3280	6230	2470	1460	2430
2	3600	5810	2320	2470	1550	5740	5070	4840	5760	2300	1400	2770
3	3360	5740	2130	2570	1530	5770	4490	7110	5240	1900	1360	2310
4	3360	4440	2150	2460	1480	5000	4240	8650	6830	1880	1440	2100
5	3380	3960	2210	2200	1460	4230	4670	9130	8760	1880	1520	2420
6	3310	3980	2150	2080	1460	3960	5440	8760	7380	1880	1530	2980
7	3350	3930	2160	2020	1450	6320	6170	7520	6520	1810	1540	2420
8	3390	3840	2240	1980	1440	9130	7040	6830	6040	1750	1520	2210
9	3330	3800	2700	1940	1430	10500	6290	6210	5100	1750	1400	2640
10	3400	3720	2650	1960	1430	9080	5120	7640	4760	1770	1430	2280
11	3420	4050	2430	1960	1490	6790	4400	8340	4340	1750	1440	2120
12	3390	3750	2360	1980	1510	7890	4050	7230	4110	1710	1460	2410
13	3470	4110	2360	2630	1550	7230	4110	5740	3680	1710	1460	2940
14	3360	4400	2350	3470	1610	5760	4260	4640	2950	1680	1540	2490
15	3350	4640	2320	2950	1570	4880	3780	4670	2850	1690	2010	2380
16	3390	5720	2250	2730	1530	4180	3840	5480	2760	1640	2520	2900
17	3400	5630	2210	2570	1490	3810	3680	9540	2550	1660	2170	2550
18	3360	6060	2200	2460	1460	3740	3320	11300	2440	1710	2050	2250
19	4260	5920	2250	2370	1430	4130	3060	9130	2410	1700	2580	2570
20	4310	5610	2210	2300	1420	4440	2830	7990	2350	1650	2130	3470
21	4370	5320	2150	2200	1500	4100	2680	7210	2350	1620	1780	3430
22	4470	5210	2120	2130	1930	3800	2680	6450	2270	1730	2140	3580
23	4110	5330	2100	2080	2230	4420	2820	6110	2250	2160	2600	3870
24	3900	4930	2080	2030	2280	4760	3260	5940	2150	2090	2690	5510
25	4240	3840	2080	1990	2290	4180	3630	5260	2100	1710	2460	5370
26	4820	2950	2680	1700	2550	3890	3900	5100	2080	1610	2850	4860
27	4440	2760	3990	1630	2910	6320	3320	6150	2040	1590	2420	4890
28	4130	2690	3460	1590	7570	5830	3020	7040	1960	1580	2070	5480
29	3980	2680	3040	1560	---	5120	2930	6810	1900	1570	2370	5680
30	4290	2680	2730	1520	---	4800	2870	6490	1960	1550	3330	6290
31	4050	---	2540	1540	---	4420	---	6060	---	1560	2940	---
TOTAL	116700	132920	75020	67510	53120	171860	121590	212650	114120	55060	61610	99600
MEAN	3765	4431	2420	2178	1897	5544	4053	6860	3804	1776	1987	3320
MAX	4820	6060	3990	3470	7570	10500	7040	11300	8760	2470	3330	6290
MIN	3310	2680	2080	1520	1420	3740	2680	3280	1900	1550	1360	2100
AC-FT	231500	263600	148800	133900	105400	340900	241200	421800	226400	109200	122200	197600

CAL YR 1976 TOTAL 2279000 MEAN 6227 MAX 48200 MIN 1380 AC-FT 4520000
WTR YR 1977 TOTAL 1281760 MEAN 3512 MAX 11300 MIN 1360 AC-FT 2542000

14189000 SANTIAM RIVER AT JEFFERSON, OR—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1963 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 23.5°C Aug. 8, 1971, Aug. 1, 1973; minimum, 1.0°C Jan. 26, 1969.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 18.0°C Aug. 22; minimum, 1.5°C Jan. 8, 9.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.5	14.5	13.0	12.5	6.5	5.5	4.0	3.5	6.0	4.5	5.5	5.0
2	15.5	14.5	13.0	12.5	6.0	5.5	4.5	4.0	6.0	4.5	5.5	5.0
3	14.5	13.5	13.0	12.5	6.0	5.5	4.5	3.5	5.0	4.0	6.0	5.0
4	14.5	13.0	13.0	11.5	6.0	5.5	4.5	4.0	5.0	4.0	6.5	5.5
5	14.5	13.0	12.0	11.5	6.5	6.0	4.0	3.0	5.0	4.5	6.5	5.5
6	15.0	13.5	12.0	11.5	7.0	6.5	3.0	2.0	6.0	4.5	6.5	6.0
7	15.5	14.0	12.0	11.5	7.5	6.0	2.5	2.0	6.0	5.0	6.5	6.0
8	15.5	14.5	12.5	12.0	8.0	7.0	2.5	1.5	5.5	5.0	6.0	6.0
9	14.5	13.5	12.5	11.5	7.5	7.0	2.5	1.5	6.0	5.0	6.0	5.0
10	14.5	14.0	11.5	11.5	7.0	6.0	3.0	2.0	7.5	6.0	6.0	4.5
11	15.5	14.0	12.0	11.0	6.0	5.5	4.0	3.0	7.5	7.5	6.5	5.5
12	15.0	13.5	11.5	10.5	5.5	5.5	5.0	4.0	8.5	7.5	6.5	6.0
13	14.5	13.5	11.0	10.5	6.0	5.5	5.5	5.0	9.5	8.0	6.0	5.0
14	14.0	13.0	11.5	11.0	6.0	5.5	5.0	4.5	8.0	6.5	6.0	5.5
15	14.0	13.0	12.0	11.5	7.5	6.0	5.5	4.5	7.5	6.0	7.0	5.5
16	14.0	12.5	12.0	12.0	7.0	6.5	5.5	5.0	8.0	6.5	7.0	6.0
17	13.5	12.0	12.0	12.0	6.5	6.0	5.0	4.5	9.0	7.5	7.0	6.0
18	13.0	11.5	12.0	11.0	6.5	6.0	6.0	5.0	9.0	7.5	7.0	6.5
19	13.0	12.0	11.0	10.0	6.5	6.0	6.5	5.5	8.5	7.5	7.5	6.5
20	13.0	11.5	10.0	10.0	6.0	5.5	5.5	5.0	8.0	7.5	7.0	6.5
21	12.5	11.5	10.5	10.0	5.0	5.0	5.5	4.5	7.5	6.5	8.0	6.0
22	12.5	12.0	10.5	10.5	5.5	5.0	5.0	4.5	7.0	6.5	9.0	7.5
23	12.5	12.0	10.5	10.0	6.0	5.0	4.5	3.5	6.0	5.0	8.5	7.5
24	12.0	12.0	10.0	9.5	5.5	5.5	3.5	3.0	5.5	5.0	8.0	6.5
25	13.0	12.0	10.0	9.5	6.0	5.0	3.5	2.5	5.5	5.0	8.5	7.0
26	12.5	12.0	9.5	7.5	6.5	5.5	4.0	3.0	6.0	5.0	8.0	7.5
27	12.5	11.5	7.5	6.5	6.5	6.0	4.0	3.0	7.0	6.0	7.5	6.5
28	12.0	11.5	6.5	5.5	6.5	5.5	4.0	3.0	7.0	5.5	6.5	5.5
29	12.5	12.0	6.5	5.5	5.5	5.5	4.0	3.0	---	---	7.0	6.0
30	12.0	11.5	6.5	6.0	5.5	4.5	4.0	3.0	---	---	8.5	6.0
31	13.0	12.0	---	---	5.0	4.0	4.5	3.5	---	---	8.0	7.0
MONTH	15.5	11.5	13.0	5.5	8.0	4.0	6.5	1.5	9.5	4.0	9.0	4.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	6.5	13.0	11.0	12.5	11.5			---	---	18.0	14.0
2	8.0	6.5	11.5	10.5	12.5	11.0			---	---	16.0	14.5
3	9.5	7.0	11.0	9.5	12.5	11.5			---	---	15.0	14.5
4	10.5	8.5	9.5	8.0	12.5	11.0			---	---	16.5	15.0
5	11.0	9.0	9.0	8.0	14.0	11.0			---	---	17.5	15.0
6	10.5	9.0	10.0	8.0	14.5	13.5			---	---	16.5	13.5
7	10.5	9.0	10.5	9.0	15.5	13.0			---	---	17.5	14.0
8	10.0	9.0	12.0	9.5	15.5	13.5			---	---	17.5	14.0
9	8.5	7.5	12.5	11.0	15.5	13.5			---	---	16.0	13.5
10	8.5	7.5	12.0	10.0	15.5	14.0			---	---	17.0	13.5
11	10.5	8.5	10.5	9.0	---	---			---	---	18.0	14.0
12	11.0	9.0	11.5	9.0	---	---			---	---	17.5	14.0
13	11.0	10.0	11.5	10.5	---	---			---	---	16.0	13.5
14	10.0	8.0	12.0	11.0	---	---			---	---	15.0	14.0
15	10.5	9.0	11.5	10.0	---	---			---	---	14.5	13.0
16	10.5	9.5	10.5	9.5	---	---			---	---	14.0	13.0
17	10.5	8.5	10.0	9.5	---	---			---	---	14.5	13.0
18	10.0	8.5	10.5	9.0	---	---			---	---	14.0	13.5
19	10.5	8.0	12.0	9.5	---	---			17.5	15.5	14.0	13.5
20	10.5	9.0	12.0	11.5	---	---			16.5	15.5	14.5	13.0
21	10.5	10.0	12.0	11.0	---	---			16.5	15.5	14.5	13.5
22	12.0	9.5	12.0	10.5	---	---			18.0	14.5	14.0	13.0
23	13.5	11.0	11.0	10.5	---	---			16.0	14.0	14.0	13.0
24	13.0	11.5	12.5	10.0	---	---			16.5	14.0	13.0	12.0
25	12.5	11.0	12.5	11.5	---	---			15.5	14.0	14.0	12.0
26	12.5	10.0	12.5	11.0	---	---			15.5	13.0	13.5	12.0
27	13.0	10.5	12.0	10.5	---	---			15.5	14.0	13.5	12.5
28	13.0	11.5	11.0	10.0	---	---			16.5	15.0	14.0	12.5
29	13.5	11.5	12.0	10.0	---	---			16.0	15.0	13.5	12.5
30	14.0	12.0	12.0	10.5	---	---			16.0	13.5	13.5	12.5
31	---	---	11.5	10.5	---	---			16.5	13.5	---	---
MONTH	14.0	6.5	13.0	8.0	15.5	11.0			18.0	13.0	18.0	12.0

14189500 LUCKIAMUTE RIVER NEAR HOSKINS, OR

LOCATION.--Lat 44°43'10", long 123°30'10", in NE¼ sec.11, T.10 S., R.7 W., Benton County, Hydrologic Unit 17090003, on right bank 0.2 mi (0.3 km) downstream from Benton County line, 3.5 mi (5.6 km) northwest of Hoskins, and at mile 43.2 (69.5 km).

DRAINAGE AREA.--34.3 mi^2 (88.8 km^2).

PERIOD OF RECORD.--May 1934 to current year.

REVISED RECORDS.--WSP 834: 1936(M). WSP 1638: 1943(P), 1946(P). WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 378.7 ft (115.43 m) above mean sea level (river-profile survey).

REMARKS.--Records good. Logponds upstream cause diurnal fluctuation at times. Minor diversion above station by pumping for irrigation.

AVERAGE DISCHARGE.--43 years, 209 ft^3/s (5.919 m^3/s), 82.75 in/yr (2,102 mm/yr), 151,400 acre-ft/yr (187 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,560 ft^3/s (157 m^3/s) Dec. 14, 1946, Feb. 17, 1949; maximum gage height, 13.22 ft (4.029 m) Dec. 14, 1946; minimum discharge, 4.0 ft^3/s (0.11 m^3/s) Sept. 5-8, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 6, 1933, reached a stage of about 13.8 ft (4.21 m), from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,340 ft^3/s (37.9 m^3/s) Feb. 28, gage height, 5.53 ft (1.686 m), no peak above base of 2,000 ft^3/s (56.6 m^3/s); minimum, 9.0 ft^3/s (0.25 m^3/s) Aug. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	85	26	61	48	1040	187	47	113	28	14	22
2	14	44	25	82	40	651	167	62	102	28	13	18
3	17	36	24	71	37	540	152	115	106	28	13	25
4	14	29	23	66	36	418	141	139	121	29	13	39
5	13	25	22	62	36	332	131	148	108	28	13	36
6	13	23	22	58	35	305	121	127	99	27	13	26
7	12	22	22	68	34	586	113	111	90	25	13	22
8	11	20	52	64	32	818	113	100	85	24	13	19
9	12	19	68	59	31	848	108	90	78	24	12	18
10	14	19	50	59	44	651	99	85	72	23	11	17
11	15	19	42	48	42	485	92	80	68	22	11	16
12	13	18	39	69	48	442	88	74	65	22	11	15
13	13	18	37	133	64	376	90	69	61	22	10	15
14	13	27	34	123	55	335	83	68	58	22	11	15
15	13	51	34	106	50	294	80	82	55	21	11	15
16	13	58	31	93	47	257	78	77	51	20	10	15
17	13	51	30	83	45	227	74	74	48	20	9.6	16
18	13	56	35	75	41	221	71	69	47	22	9.6	27
19	12	46	32	69	39	208	68	66	45	20	11	77
20	13	40	30	65	48	190	65	64	46	18	10	65
21	13	37	29	61	80	174	65	64	45	18	11	75
22	13	34	29	56	177	159	62	59	41	18	11	54
23	13	30	31	52	164	164	59	56	39	17	11	54
24	24	31	29	50	179	162	56	55	37	16	18	71
25	62	42	42	47	232	144	56	52	36	16	31	71
26	36	32	121	44	341	144	55	77	35	18	40	59
27	22	30	148	41	453	285	52	97	32	17	21	51
28	18	29	106	40	1030	268	50	95	31	16	55	47
29	17	28	87	38	---	246	50	85	30	16	42	40
30	15	27	74	38	---	221	47	82	29	15	47	39
31	65	---	64	45	---	203	---	100	---	15	28	---
TOTAL	561	1026	1438	2026	3508	11394	2673	2569	1873	655	547.2	1079
MEAN	18.1	34.2	46.4	65.4	125	368	89.1	82.9	62.4	21.1	17.7	36.0
MAX	65	85	148	133	1030	1040	187	148	121	29	55	77
MIN	11	18	22	38	31	144	47	47	29	15	9.6	15
CFSM	.53	1.00	1.35	1.91	3.64	10.7	2.60	2.42	1.82	.62	.52	1.05
IN.	.61	1.11	1.56	2.20	3.80	12.36	2.90	2.79	2.03	.71	.59	1.17
AC-FT	1110	2040	2850	4020	6960	22600	5300	5100	3720	1300	1090	2140

CAL YR 1976 TOTAL 57107.0 MEAN 156 MAX 1710 MIN 10 CFSM 4.55 IN 61.94 AC-FT 113300

WTR YR 1977 TOTAL 29349.2 MEAN 80.4 MAX 1040 MIN 9.6 CFSM 2.34 IN 31.83 AC-FT 58210

14190500 LUCKIAMUTE RIVER NEAR SUVER, OR

LOCATION.--Lat 44°47'00", long 123°14'00", in SW¼SW¼ sec.18, T.9 S., R.4 W., Polk County, Hydrologic Unit 17090003, on right bank 10 ft (3 m) upstream from highway bridge at Helmick State Park, 3.0 mi (4.8 km) northwest of Suver, 4.7 mi (7.6 km) downstream from Little Luckiamute River, and at mile 13.5 (21.7 km).

DRAINAGE AREA.--240 mi^2 (622 km^2).

PERIOD OF RECORD.--August 1905 to October 1911, July 1940 to current year.

REVISED RECORDS.--WSP 1044: Drainage area. WSP 1094: 1945-46. WSP 1248: 1905-11.

GAGE.--Water-stage recorder. Datum of gage is 171.92 ft (52.401 m) above mean sea level. Aug. 18, 1905, to Oct. 31, 1911, nonrecording gage at present site at different datum, Aug. 20 to Oct. 15, 1940, nonrecording gage at present site and datum.

REMARKS.--Records good. Some diurnal fluctuation during periods of low flow caused by millpond above station. A few small diversions for irrigation above station.

AVERAGE DISCHARGE.--43 years, 924 ft^3/s (26.17 m^3/s), 52.28 in/yr (1,328 mm/yr), 669,400 acre-ft/yr (825 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,900 ft^3/s (932 m^3/s) Dec. 22, 1964, gage height, 34.52 ft (10.522 m); minimum, 0.65 ft^3/s (0.018 m^3/s) Aug. 13, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,410 ft^3/s (96.6 m^3/s) Mar. 9, gage height, 20.67 ft (6.300 m), no peak above base of 6,600 ft^3/s (187 m^3/s); minimum, 6.9 ft^3/s (0.20 m^3/s) Aug. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	180	65	136	117	2830	578	164	308	59	24	61
2	30	197	63	143	118	2320	537	184	297	55	19	49
3	32	132	63	187	105	1690	496	245	266	57	16	43
4	37	101	63	164	99	1330	463	373	318	62	16	50
5	37	84	60	149	96	1070	440	442	336	62	16	81
6	34	75	59	136	94	888	420	414	291	53	18	75
7	31	68	59	110	92	1260	406	354	258	51	18	57
8	31	65	59	134	90	2660	397	321	231	48	22	49
9	29	62	135	131	87	3120	398	292	211	44	17	45
10	30	59	154	134	86	3120	375	270	195	45	16	41
11	33	57	120	120	110	2120	345	249	180	49	13	39
12	34	56	105	139	111	1670	324	232	174	42	12	37
13	33	55	95	181	122	1530	313	216	162	41	9.2	33
14	33	55	88	312	139	1270	310	205	149	38	9.2	32
15	32	71	84	269	127	1120	292	206	142	37	15	31
16	32	124	82	235	118	960	285	237	132	35	13	34
17	31	137	79	207	112	839	269	221	121	33	12	34
18	31	124	76	186	108	768	256	214	112	39	11	39
19	30	131	76	172	103	738	244	203	111	38	10	82
20	28	111	72	159	102	682	234	190	108	36	14	164
21	28	99	70	149	133	623	226	180	106	32	17	161
22	27	90	68	139	272	580	225	176	100	26	21	158
23	29	84	68	130	430	567	214	166	91	23	18	117
24	31	78	72	124	401	603	204	162	87	22	20	130
25	57	77	71	118	438	561	198	156	77	28	39	152
26	125	93	118	114	699	513	202	174	75	23	89	152
27	84	81	325	109	838	658	191	219	75	26	86	124
28	59	74	287	105	1750	797	181	267	67	25	56	111
29	51	70	217	102	---	739	174	245	65	24	84	102
30	48	68	179	98	---	668	171	217	60	22	83	90
31	48	---	153	100	---	610	---	230	---	22	84	---
TOTAL	1226	2758	3285	4692	7097	38904	9368	7424	4905	1197	897.4	2373
MEAN	39.5	91.9	106	151	253	1255	312	239	164	38.6	28.9	79.1
MAX	125	197	325	312	1750	3120	578	442	336	62	89	164
MIN	27	55	59	98	86	513	171	156	60	22	9.2	31
CFSM	.17	.38	.44	.63	1.05	5.23	1.30	1.00	.68	.16	.12	.33
IN.	.19	.43	.51	.73	1.10	6.03	1.45	1.15	.76	.19	.14	.37
AC-FT	2430	5470	6520	9310	14080	77170	18580	14730	9730	2370	1780	4710

CAL YR 1976 TOTAL 244510.0 MEAN 668 MAX 7450 MIN 23 CFSM 2.78 IN 37.90 AC-FT 485000
WTR YR 1977 TOTAL 84126.4 MEAN 230 MAX 3120 MIN 9.2 CFSM .96 IN 13.04 AC-FT 166900

14190700 RICKREALL CREEK NEAR DALLAS, OR

LOCATION.--Lat 44°54'55", long 123°23'02", in SW¼SE¼ sec.35, T.7 S., R.6 W., Polk County, Hydrologic Unit 17090007, on left bank 1.8 mi (2.9 km) downstream from Canyon Creek, 3.5 mi (5.6 km) west of Dallas, 5.1 mi (8.2 km) downstream from Aaron Mercer Reservoir, and at mile 19.1 (30.7 km).

DRAINAGE AREA.--27.4 mi^2 (71.0 km^2).

PERIOD OF RECORD.--August 1957 to current year.

REVISED RECORDS.--WSP 1718: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 460 ft (140 m), from topographic map.

REMARKS.--Records good. Low flow regulated since June 1960 by Aaron Mercer Reservoir, usable capacity, 2,010 acre-ft (2.48 hm^3). Diversion for city of Dallas municipal supply from four tributaries and Rickreall Creek above station.

COOPERATION.--Records of diversion, monthend elevations of reservoir, and reservoir capacity curve furnished by city of Dallas.

AVERAGE DISCHARGE.--20 years (water years 1958-77), 147 ft^3/s (4.163 m^3/s), 72.86 in/yr (1,851 mm/yr), 106,500 acre-ft/yr (131 hm^3/yr), adjusted for diversion and storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,160 ft^3/s (203 m^3/s) Dec. 22, 1964, gage height, 8.78 ft (2.676 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,130 ft^3/s (32.0 m^3/s) Mar. 7, gage height, 4.38 ft (1.335 m), no peak above base of 1,300 ft^3/s (36.8 m^3/s); minimum, 1.3 ft^3/s (0.037 m^3/s) July 31 to Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	15	7.9	7.2	14	559	95	26	58	6.1	3.2	6.4
2	9.0	29	7.6	8.0	13	343	85	31	52	6.7	2.6	6.4
3	7.9	27	7.9	7.9	12	274	80	52	51	8.2	2.4	6.7
4	7.0	27	7.7	7.4	12	215	75	61	71	8.9	4.1	7.4
5	6.4	26	8.1	7.0	12	165	73	67	67	8.2	3.2	6.7
6	6.6	26	7.2	6.3	12	149	73	59	58	7.8	4.1	6.7
7	6.9	25	7.2	6.5	11	515	74	55	48	5.4	4.3	6.4
8	7.4	24	9.8	5.3	10	762	77	48	42	5.2	3.6	6.1
9	8.1	24	11	5.7	9.9	665	73	45	35	6.1	3.2	6.4
10	10	23	11	7.0	14	452	65	42	31	6.1	3.0	6.1
11	9.5	22	11	8.0	16	325	58	38	28	4.9	2.6	5.7
12	9.4	21	9.9	10	16	276	54	35	28	5.7	3.0	6.4
13	9.5	21	9.5	13	18	227	55	32	25	5.4	3.0	6.1
14	9.6	19	9.7	20	17	195	51	31	22	4.6	4.1	6.4
15	8.7	19	9.7	30	16	169	49	33	21	4.1	3.4	5.7
16	8.0	21	9.7	27	15	147	47	35	20	4.3	3.0	6.1
17	7.9	22	9.6	25	14	129	43	32	16	6.1	2.4	7.1
18	7.2	22	10	23	13	118	40	31	16	6.4	3.4	8.9
19	6.5	22	10	21	12	111	38	29	16	5.7	3.2	11
20	7.1	21	9.3	19	19	101	36	28	16	4.3	4.3	11
21	5.3	21	9.4	18	37	92	37	27	16	3.8	4.9	7.8
22	5.2	20	9.4	16	87	86	34	25	15	3.8	3.4	10
23	5.4	18	10	15	85	91	32	24	11	3.0	5.4	12
24	7.2	17	10	14	80	89	30	23	9.3	4.3	7.1	11
25	7.6	19	11	13	94	81	31	23	9.8	4.9	8.9	14
26	7.6	17	15	12	143	78	32	36	9.8	4.3	7.8	12
27	7.6	12	15	11	249	143	29	39	7.4	4.6	7.4	11
28	7.4	11	10	11	631	138	27	40	7.4	3.6	7.4	13
29	7.0	10	8.7	11	---	126	26	37	6.4	4.3	7.1	12
30	6.3	8.0	7.4	12	---	109	25	36	5.7	4.3	7.1	16
31	14	---	7.0	15	---	99	---	45	---	3.8	6.4	---
TOTAL	240.7	609.0	296.7	412.3	1681.9	7029	1544	1165	818.8	164.9	139.0	258.5
MEAN	7.76	20.3	9.57	13.3	60.1	227	51.5	37.6	27.3	5.32	4.48	8.62
MAX	14	29	15	30	631	762	95	67	71	8.9	8.9	16
MIN	5.2	8.0	7.0	5.3	9.9	78	25	23	5.7	3.0	2.4	5.7
AC-FT	477	1210	589	818	3340	13940	3060	2310	1620	327	276	513
MEAN†	6.97	16.6	24.1	25.7	62.5	229	53.8	39.8	30.9	8.32	4.13	17.1
CFSM†	.25	.61	.88	.94	2.28	8.36	1.96	1.45	1.13	.30	.15	.62
IN.†	.29	.67	1.01	1.08	2.37	9.63	2.19	1.68	1.26	.35	.17	.70
AC-FT†	429	986	1,480	1,580	3,470	14,080	3,200	2,450	1,840	512	254	1,020

CAL YR 1976 TOTAL 36,418.9 MEAN 99.5 MAX 1,240 MIN 4.3 AC-FT 72,240 MEAN† 102 CFSM† 3.72 IN.† 50.44 AC-FT† 73,720
WTR YR 1977 TOTAL 14,359.8 MEAN 39.3 MAX 762 MIN 2.4 AC-FT 28,480 MEAN† 43.2 CFSM† 1.58 IN.† 21.41 AC-FT† 31,290

† Adjusted for diversion and change in contents of Aaron Mercer Reservoir.

14191000 WILLAMETTE RIVER AT SALEM, OR

LOCATION.--Lat 44°56'40", long 123°02'30", in SE¼SW¼ sec.22, T.7 S., R.3 W., Marion County, Hydrologic Unit 17090007, on right bank 300 ft (91 m) upstream from Center Street Bridge in Salem and at mile 84.16 (135.41 km).

DRAINAGE AREA.--7,280 mi² (18,900 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1909 to December 1916, January 1923 to current year. Monthly discharge only January 1923 to September 1927, published in WSP 1318. Gage-height records collected at about the same site since 1892 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1318: 1915(M).

GAGE.--Water-stage recorder. Datum of gage is 106.14 ft (32.351 m) above mean sea level. Oct. 1, 1909, to Dec. 31, 1916, nonrecording gage at site 0.5 mi (0.8 km) upstream at datum 8.00 ft (2.438 m) higher. Jan. 1, 1923, to Nov. 26, 1934, nonrecording gage at Center Street Bridge at datum 8.00 ft (2.438 m) higher. Nov. 27, 1934, to Sept. 30, 1962, water-stage recorder at present site at datum 8.00 ft (2.438 m) higher.

REMARKS.--Water-discharge records excellent. Flow regulated by 12 reservoirs above station (see elsewhere in this report). Many small diversions for irrigation above station; part of flow of Salem Canal, which diverts water from North Santiam River, returns to Willamette River below station, through Mill Creek at Salem (see station 14192000).

AVERAGE DISCHARGE.--61 years, 23,630 ft³/s (669.2 m³/s), 44.08 in/yr (1,120 mm/yr), 17,120,000 acre-ft/yr (21.1 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 348,000 ft³/s (9,860 m³/s) Jan. 8, 1923, gage height, 38.3 ft (11.67 m), present datum; minimum, 2,470 ft³/s (70.0 m³/s) Aug. 27, 1940, gage height, 3.55 ft (1.082 m), present datum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 500,000 ft³/s (14,200 m³/s) Dec. 4, 1861, gage height, about 47 ft (14.3 m) present datum, from rating curve extended above 250,000 ft³/s (7,080 m³/s) in 1916. Floods of Jan. 16, 1881, and Feb. 5, 1890, reached stages of 44.3 ft (13.50 m), discharge, 428,000 ft³/s (12,100 m³/s), and 45.1 ft (13.75 m), discharge, 448,000 ft³/s (12,700 m³/s), respectively, from floodmarks and information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 33,100 ft³/s (937 m³/s) Mar. 10, gage height, 12.01 ft (3.661 m); minimum, 4,100 ft³/s (116 m³/s) Feb. 20, gage height, 3.85 ft (1.173 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11600	14100	7950	6470	5000	19700	11600	7710	14700	6290	5820	7790
2	11800	15700	7180	6430	5020	20200	12300	8930	14100	6600	5630	7920
3	11600	16600	6900	6600	4950	17300	12000	11800	13300	6290	5570	7710
4	11500	15000	6850	6880	4890	16300	11100	16000	13300	6220	5530	7130
5	11600	13200	6930	6700	4830	14300	10900	18900	16600	6370	5720	7160
6	12100	12800	6930	6430	4790	12400	11700	19800	15700	6310	5940	7850
7	12000	12400	6670	6200	4810	13500	13100	18300	14300	6200	6000	7690
8	12000	12000	6720	6020	4680	21300	14300	16700	13300	6040	6060	7320
9	12100	12000	7110	6020	4580	27800	15300	15200	12100	5920	5920	7980
10	12200	11700	7690	6060	4500	32400	14100	14500	11000	5960	5840	8140
11	12200	11600	7320	6080	4520	28000	12400	16800	10400	6040	5780	7820
12	12200	11600	6880	6120	4560	23500	11200	17200	9900	5920	5780	7920
13	12200	11300	6770	6370	4540	24300	10500	15500	9350	5880	5760	8410
14	11800	11500	6670	7690	4620	21200	10700	13200	8520	5840	5880	8490
15	10600	11600	6600	8540	4620	17600	10300	12200	8060	5760	6290	9060
16	11500	12700	6570	8330	4540	14900	9870	12600	7850	5760	6930	8460
17	11600	13600	6470	7980	4420	13100	9840	15400	7420	5960	7260	8380
18	11600	14100	6330	7470	4260	11900	9270	22600	7180	6160	6930	7950
19	12100	14600	6240	6800	4160	11600	8680	22800	6950	6200	7420	9220
20	12600	13900	6160	6570	4140	11800	8240	20500	6850	6080	7500	9610
21	12500	13000	6100	6410	4260	11700	7900	18300	6900	6000	6930	9900
22	12800	12600	6040	6270	4910	10900	7710	16400	6750	6020	7210	9780
23	13000	12700	6040	6120	5940	10700	7610	15200	6600	6350	7660	10000
24	12600	12400	6000	5980	6750	11800	7820	14900	6390	6670	8160	14100
25	12900	11300	5960	5920	7130	11700	8270	14700	6160	6390	8240	13300
26	14100	9410	6180	5700	7390	10900	8820	13600	6240	6180	8460	12800
27	14400	8760	7470	5340	7950	10700	8740	14700	6370	6000	8080	12300
28	13600	8350	8110	5170	12000	13700	8080	16400	6180	5880	7110	13000
29	13200	8300	7550	5060	---	14100	7790	16700	6040	5840	7030	14000
30	13400	8330	7030	5000	---	13300	7580	16000	5940	5780	7870	14600
31	13600	---	6750	4950	---	12400	---	15000	---	5780	8650	---
TOTAL	383000	367150	210170	197680	148760	505000	307720	488540	284450	188690	208960	283740
MEAN	12350	12240	6780	6377	5313	16290	10260	15760	9482	6087	6741	9460
MAX	14400	16600	8110	8540	12000	32400	15300	22800	16600	6670	8650	14600
MIN	10600	8300	5960	4950	4140	10700	7580	7710	5940	5760	5530	7130
CFSM	1.70	1.68	.93	.88	.73	2.24	1.41	2.17	1.30	.84	.93	1.30
IN.	1.96	1.88	1.07	1.01	.76	2.58	1.57	2.50	1.45	.96	1.07	1.45
AC-FT	759700	728200	416900	392100	295100	1002000	610400	969000	564200	374300	414500	562900

CAL YR 1976 TOTAL 7412040 MEAN 20250 MAX 120000 MIN 5960 CFSM 2.78 IN 37.87 AC-FT 14700000
WTR YR 1977 TOTAL 3573910 MEAN 9792 MAX 32400 MIN 4140 CFSM 1.35 IN 18.26 AC-FT 7089000

14191000 WILLAMETTE RIVER AT SALEM, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1910-12, 1951 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1951 to September 1972, October 1976 to current year.
WATER TEMPERATURES: February 1951 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 141 micromhos/cm Sept. 17, 1966; minimum daily, 30 micromhos/cm Jan. 29, 1965.
WATER TEMPERATURES: Maximum, 25.5°C July 23, 1959; minimum, 0.0°C on several days in 1956.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 123 micromhos/cm Feb. 2, 3; minimum daily, 47 micromhos/cm May 6.
WATER TEMPERATURES: Maximum, 24.0°C Aug. 3, 12; minimum, 2.0°C Jan. 8-10.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	DISSOLVED OXYGEN (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)
NOV 15...	1100	11700	11.4	7.2	--	66	15	60
DEC 28...	1130	8080	7.3	6.8	--	113	16	70
FEB 07...	1200	4810	4.5	7.2	11.5	112	16	90
APR 26...	1000	7710	13.7	7.1	--	103	13	80
JUN 14...	1030	8490	16.2	6.7	--	85	14	80
JUL 21...	0800	6080	19.4	6.6	--	70	15	250

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
NOV 15...	7.6	2.4	4.5	.8	27	0	5.2	4.6	.1
DEC 28...	6.9	1.9	4.5	.6	27	0	6.0	5.9	.1
FEB 07...	9.7	2.3	7.9	.9	26	0	12	14	.1
APR 26...	9.2	1.8	5.1	.7	25	0	4.8	5.5	.1
JUN 14...	8.5	1.3	5.6	.7	26	0	4.9	6.8	.1
JUL 21...	9.2	1.8	6.2	.8	26	0	4.4	6.7	.1

DATE	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)
NOV 15...	.69	.08	29	7	.4	57	1800	.08
DEC 28...	.84	.06	25	3	.4	59	1290	.08
FEB 07...	.45	.08	34	12	.6	78	1010	.11
APR 26...	.32	.04	30	10	.4	54	1120	.07
JUN 14...	.54	.07	27	5	.5	57	1310	.08
JUL 21...	--	.07	30	9	.5	57	936	.08

14191000 WILLAMETTE RIVER AT SALEM, OR--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	65	77	90	122	69	61	72	58	76	70	68
2	60	65	79	89	123	67	58	65	58	72	72	68
3	58	62	81	88	123	66	56	56	60	67	75	69
4	60	64	85	90	122	66	55	50	60	66	72	73
5	62	69	88	96	119	67	55	48	56	61	74	74
6	63	69	85	100	116	70	55	47	56	58	74	70
7	63	67	84	101	117	71	51	48	60	57	75	69
8	64	67	87	104	119	65	49	49	63	58	74	73
9	65	69	86	105	121	61	48	50	62	61	71	69
10	66	71	83	106	121	58	51	54	67	62	71	67
11	66	70	83	105	120	59	55	52	69	61	69	69
12	63	68	81	102	118	60	59	52	70	61	69	70
13	63	68	82	100	118	61	64	53	70	63	68	68
14	65	67	84	92	115	63	63	57	73	63	66	69
15	69	67	86	90	110	65	62	61	76	63	66	70
16	69	67	87	90	114	66	61	62	74	65	63	70
17	66	65	88	92	113	67	61	63	73	65	60	70
18	67	65	91	95	115	68	65	49	75	62	63	72
19	67	64	89	101	117	69	69	48	74	62	63	74
20	65	65	87	103	116	65	72	49	74	61	61	74
21	64	67	86	102	117	63	75	51	76	62	63	73
22	63	67	89	102	114	63	76	54	76	62	64	70
23	61	66	92	106	110	62	77	56	75	62	63	68
24	63	66	92	105	103	60	71	58	74	60	60	66
25	65	67	93	102	96	60	68	57	74	61	62	61
26	65	70	90	103	93	59	66	59	77	64	64	63
27	65	74	84	109	94	63	66	58	77	64	64	65
28	67	77	76	117	86	54	67	56	77	64	66	65
29	68	79	83	119	---	56	68	55	78	67	68	65
30	66	79	87	121	---	57	71	55	77	71	65	64
31	65	---	89	122	---	59	---	58	---	67	62	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.0	17.5	14.0	13.5	---	---	5.0	5.0	5.0	4.0	7.5	7.0
2	17.5	17.0	14.5	14.0	---	---	5.0	5.0	5.5	5.0	7.0	7.0
3	16.5	16.0	14.5	14.5	---	---	5.0	5.0	5.5	5.0	7.0	6.5
4	16.0	15.5	14.5	14.0	---	---	5.0	5.0	5.0	5.0	7.0	7.0
5	15.0	14.5	14.0	14.0	---	---	5.0	4.0	5.0	5.0	7.5	7.0
6	16.0	15.0	14.0	13.5	---	---	4.0	3.5	5.5	5.0	7.5	7.5
7	16.5	15.5	14.0	13.5	---	---	3.0	2.5	5.5	5.5	7.5	7.5
8	17.0	16.5	13.5	13.5	---	---	2.5	2.0	5.5	5.5	7.5	7.5
9	17.0	16.5	13.5	13.5	---	---	2.5	2.0	6.0	5.5	7.5	7.0
10	16.5	16.0	13.5	13.5	---	---	2.5	2.0	7.0	6.0	7.0	6.5
11	16.5	16.0	13.5	13.5	---	---	3.5	2.5	8.0	7.0	7.0	6.5
12	16.5	16.0	13.5	13.0	---	---	5.0	3.5	8.5	8.0	7.5	7.0
13	16.0	15.5	13.0	13.0	---	---	6.0	5.0	9.0	8.5	7.5	7.0
14	15.5	15.0	13.0	13.0	---	---	6.0	6.0	9.0	8.5	7.5	7.0
15	15.5	15.0	13.0	13.0	---	---	6.5	6.0	8.5	8.5	7.5	6.5
16	15.5	14.5	14.0	13.0	---	---	6.5	6.0	8.5	8.5	8.0	7.5
17	15.0	14.5	14.0	14.0	---	---	6.0	6.0	9.0	8.5	8.5	8.0
18	14.5	14.0	14.0	14.0	---	---	6.0	6.0	9.5	9.0	8.5	8.5
19	14.0	13.5	14.0	12.5	---	---	7.0	6.0	9.5	9.0	8.5	8.5
20	14.0	13.5	12.5	12.0	---	---	7.0	6.5	9.5	8.5	8.5	8.5
21	14.0	13.5	12.0	12.0	---	---	6.5	6.0	8.5	8.5	9.5	8.5
22	13.5	13.5	12.0	12.0	---	---	6.0	5.5	8.0	8.0	10.0	9.0
23	13.5	13.0	12.0	12.0	---	---	6.0	5.0	8.0	7.0	10.5	10.0
24	13.5	13.5	12.0	11.5	---	---	5.0	4.5	7.0	6.5	10.5	10.0
25	13.5	13.5	11.5	11.5	---	---	4.5	4.0	6.5	6.0	10.5	9.5
26	13.5	13.5	11.5	10.5	---	---	4.0	3.5	6.5	6.0	10.5	10.0
27	13.5	13.5	---	---	---	---	4.0	3.5	7.5	6.5	10.0	10.0
28	13.5	13.0	---	---	---	---	3.5	3.5	7.5	7.5	9.5	9.0
29	13.0	13.0	---	---	7.0	6.5	4.0	3.5	---	---	9.0	8.5
30	13.0	13.0	---	---	6.5	6.0	3.5	3.5	---	---	9.5	8.5
31	13.5	13.0	---	---	6.0	5.0	4.0	3.5	---	---	9.5	9.5
MONTH	18.0	13.0	14.5	10.5	---	---	7.0	2.0	9.5	4.0	10.5	6.5

14191000 WILLAMETTE RIVER AT SALEM, OR--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	9.0	16.0	14.5	14.5	13.0	21.5	20.5	23.0	21.5	18.5	17.0
2	9.5	9.0	14.5	14.0	15.0	14.0	20.5	20.0	23.5	22.0	18.0	17.5
3	10.0	9.0	14.0	13.5	14.5	14.0	20.0	18.5	24.0	22.5	17.5	17.0
4	11.5	10.0	13.5	12.0	14.0	13.5	18.5	18.0	23.5	22.5	17.0	17.0
5	13.0	11.5	12.0	11.5	15.0	14.0	18.0	17.5	23.0	22.0	18.5	17.0
6	13.5	12.5	11.5	11.0	17.5	15.0	18.0	17.0	22.5	21.5	18.5	17.5
7	13.5	12.5	12.0	11.5	18.0	16.5	19.0	17.5	22.5	21.5	18.5	17.5
8	13.5	13.0	13.0	11.5	18.0	17.5	20.0	18.5	23.0	21.5	18.0	17.0
9	12.5	11.5	14.0	13.0	18.0	17.0	19.5	19.0	23.0	21.5	17.5	17.0
10	11.5	11.0	13.5	13.0	18.0	16.5	19.0	18.5	23.0	22.0	17.5	16.5
11	11.5	10.5	13.0	12.0	17.5	16.5	20.5	18.5	23.5	22.0	17.5	16.5
12	12.5	11.5	12.5	12.0	16.5	15.5	19.5	19.0	24.0	22.5	18.0	17.0
13	13.0	12.5	13.0	12.5	17.5	16.0	19.0	18.5	23.5	22.5	18.0	17.0
14	12.5	12.0	13.5	12.5	18.0	17.0	20.0	18.5	23.0	22.0	18.0	17.0
15	12.5	12.0	13.5	13.0	18.0	17.0	21.0	19.5	22.0	21.0	16.5	16.0
16	12.5	12.5	12.5	12.5	19.0	17.5	21.5	20.0	22.0	21.0	16.0	15.5
17	12.5	12.0	12.5	11.5	19.5	18.0	21.0	20.0	22.0	21.0	15.5	15.0
18	12.5	11.5	11.5	11.0	19.5	19.0	20.0	19.0	22.0	21.0	15.0	15.0
19	12.5	11.5	12.5	11.5	19.5	18.5	19.5	18.5	21.5	20.5	15.0	15.0
20	12.5	12.0	13.5	12.5	19.0	18.0	20.5	19.0	20.5	19.5	15.0	14.5
21	12.5	12.5	14.0	13.0	18.0	17.5	20.5	19.5	19.5	18.5	15.0	14.5
22	13.5	12.0	14.0	13.5	19.0	18.0	21.5	20.0	18.5	18.0	15.0	14.5
23	14.5	13.0	13.5	13.0	20.0	18.5	21.5	20.5	18.5	18.0	14.5	14.5
24	15.0	14.5	13.0	12.0	21.0	19.5	21.5	20.5	18.0	17.0	14.5	14.0
25	15.0	14.5	13.5	13.0	21.5	20.5	21.0	20.0	17.5	17.0	14.0	13.5
26	14.5	13.5	14.0	13.0	21.5	20.5	20.5	19.5	17.0	16.5	14.0	13.5
27	15.0	14.0	14.0	13.0	21.0	20.5	20.5	19.5	16.5	16.5	14.0	14.0
28	15.0	14.5	13.0	12.5	21.5	20.0	20.5	19.5	17.5	16.5	14.0	13.5
29	15.5	14.5	13.5	12.5	21.0	20.0	20.5	19.5	17.5	17.0	13.5	13.0
30	16.5	15.5	13.5	13.5	21.5	20.0	21.5	20.0	18.0	17.0	13.0	13.0
31	---	---	13.0	13.0	---	---	22.0	20.5	18.0	17.0	---	---
MONTH	16.5	9.0	16.0	11.0	21.5	13.0	22.0	17.0	24.0	16.5	18.5	13.0

14192000 MILL CREEK AT SALEM, OR

LOCATION.--Lat 44°56'05", long 123°01'00", in SW¼NE¼ sec.26, T.7 S., R.3 W., Marion County, Hydrologic Unit 17090007, on left bank at State Street Bridge in Salem, 220 ft (67 m) downstream from 19th Street power diversion and at mile 2.11 (3.39 km).

DRAINAGE AREA.--110 mi² (285 km²).

PERIOD OF RECORD.--November, December 1934, August to October 1938, May 1939 to current year. Prior to October 1940 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1218: Drainage area. WSP 1718: 1954(M), 1956(M), 1958(M).

GAGE.--Water-stage recorder. Datum of gage is 166.12 ft (50.633 m) above mean sea level. See WSP 1738 for history of changes prior to Oct. 10, 1940.

REMARKS.--Records good. Diurnal fluctuation caused by powerplant above station. Salem power canal diverts water into Mill Creek near Stayton. Several diversions from Mill Creek, including Shelton flood bypass 1.2 mi (1.9 km) upstream and 19th Street power diversion 220 ft (67 m) upstream.

AVERAGE DISCHARGE.--38 years (water years 1940-77), 138 ft³/s (3.908 m³/s), 99,980 acre-ft/yr (123 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,230 ft³/s (63.2 m³/s) Jan. 16, 1974, gage height, 9.85 ft (3.002 m), from floodmark; no flow Oct. 2, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 379 ft³/s (10.7 m³/s) Mar. 9, gage height, 3.14 ft (0.957 m); minimum, 9.4 ft³/s (0.27 m³/s) Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1976 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]
WTR YR 1977 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]

14192500 SOUTH YAMHILL RIVER NEAR WILLAMINA, OR

LOCATION.--Lat 45°02'30", long 123°30'10", in NE¼SE¼ sec.14, T.6 S., R.7 W., Polk County, Hydrologic Unit 17090008, on left bank 2.3 mi (3.7 km) southwest of Willamina, 2.8 mi (4.5 km) upstream from Willamina Creek, and at mile 45.5 (73.2 km).

DRAINAGE AREA.--133 mi^2 (344 km^2).

PERIOD OF RECORD.--May 1934 to current year.

REVISED RECORDS.--WSP 814: Drainage area. WSP 1318: 1934.

GAGE.--Water-stage recorder. Datum of gage is 235.55 ft (71.796 m) above mean sea level.

REMARKS.--Records good. Slight regulation occasionally at low flows by millpond upstream. No diversion above station.

AVERAGE DISCHARGE.--43 years, 628 ft^3/s (17.78 m^3/s), 64.12 in/yr (1,629 mm/yr), 455,000 acre-ft/yr (561 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,600 ft^3/s (555 m^3/s) Dec. 22, 1964, gage height, 17.07 ft (5.203 m); minimum, 2.6 ft^3/s (0.074 m^3/s) Oct. 11, 1952.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,180 ft^3/s (118 m^3/s) Mar. 7, gage height, 6.98 ft (2.128 m), no peak above base of 5,700 ft^3/s (161 m^3/s); minimum, 6.3 ft^3/s (0.18 m^3/s) Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	202	44	128	101	2530	734	116	441	55	19	48
2	21	115	43	182	86	1630	608	145	344	52	17	39
3	29	82	41	185	79	1540	530	296	314	52	16	52
4	34	67	40	161	77	1140	470	397	645	55	16	150
5	27	57	40	144	75	875	421	405	360	52	15	132
6	26	51	39	108	73	790	382	329	310	54	15	87
7	22	45	39	216	71	2120	348	274	274	49	13	67
8	22	43	91	164	69	2620	336	241	244	45	13	57
9	20	39	199	125	67	2010	321	216	219	44	12	49
10	22	37	128	118	64	2020	288	204	201	44	10	45
11	26	36	101	119	104	1910	261	190	184	41	9.4	40
12	26	34	90	149	101	1560	238	178	172	42	9.4	38
13	24	32	82	196	123	1290	206	161	158	41	8.6	36
14	23	43	73	202	130	1100	232	158	145	39	8.3	33
15	23	96	71	179	101	967	219	140	135	38	8.6	32
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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14193000 WILLAMINA CREEK NEAR WILLAMINA, OR

LOCATION.--Lat 45°08'35", long 123°29'35", in NE¼NW¼ sec.13, T.5 S., R.7 W., Yamhill County, Hydrologic Unit 17090008, on right bank 4.5 mi (7.2 km) north of Willamina and at mile 6.2 (10.0 km).

DRAINAGE AREA.--64.7 mi^2 (167.6 km^2).

PERIOD OF RECORD.--June 1934 to current year.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 315 ft (96.0 m) above mean sea level (plane-table survey). Prior to Oct. 1, 1939, water-stage recorder at site on left bank at datum 1.00 ft (0.305 m) higher. Oct. 1, 1939, to Aug. 5, 1968, water-stage recorder at site on left bank at present datum.

REMARKS.--Records excellent. No regulation or diversion above station.

AVERAGE DISCHARGE.--43 years, 263 ft^3/s (7.448 m^3/s), 55.20 in/yr (1,402 mm/yr), 190,500 acre-ft/yr (235 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft^3/s (306 m^3/s) Dec. 22, 1964, gage height, 13.54 ft (4.126 m), from rating curve extended above 3,400 ft^3/s (96.3 m^3/s) on basis of slope-area measurement at gage height 11.65 ft (3.551 m); minimum, 5.4 ft^3/s (0.15 m^3/s) July 15, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 31, 1931, reached a stage of about 12 ft (3.6 m) from information by local resident, discharge, 8,200 ft^3/s (232 m^3/s) from rating curve extended above 3,400 ft^3/s (96.3 m^3/s) on basis of slope-area measurement at gage height 11.65 ft (3.551 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,280 ft^3/s (36.2 m^3/s) Mar. 9, gage height, 5.42 ft (1.652 m), no peak above base of 2,300 ft^3/s (65.1 m^3/s); minimum, 7.0 ft^3/s (0.20 m^3/s) Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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14194000 SOUTH YAMHILL RIVER NEAR WHITESON, OR

LOCATION.--Lat 45°10'08", long 123°12'25", in NE¼NW¼ sec.5, T.5 S., R.4 W., Yamhill County, Hydrologic Unit 17090008, near left bank on downstream side of Whiteson Bridge on State Highway 99W, 1.3 mi (2.1 km) northwest of Whiteson, 1.4 mi (2.3 km) downstream from Salt Creek, and at mile 16.71 (26.89 km).

DRAINAGE AREA.--502 mi² (1,300 km²).

PERIOD OF RECORD.--July 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 82.30 ft (25.085 m) above mean sea level. Prior to Sept. 20, 1940, nonrecording gage at present site and datum.

REMARKS.--Records good. Slight regulation during low-water periods by logpond upstream. Many small diversions for irrigation above station.

AVERAGE DISCHARGE.--37 years, 1,784 ft³/s (50.2 m³/s), 48.26 in/yr (1,226 mm/yr), 1,293,000 acre-ft/yr (1.59 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,200 ft³/s (1,340 m³/s) Dec. 23, 1964, gage height, 47.20 ft (14.387 m); minimum, 3.2 ft³/s (0.091 m³/s) Aug. 24, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1937 reached a stage of 46.9 ft (14.30 m), from Oregon State Highway Department bridge plans.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,[illegible] ft³/s (200 m³/s) Mar. 10, gage height, 28.29 ft (8.623 m), no peak above base of 13,000 ft³/s (368 m³/s); minimum, 6.9 ft³/s (0.20 m³/s) Aug. 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	185	85	25	162	4970	1610	273	798	95	36	108
2	29	298	83	23	164	4570	1460	312	786	84	36	87
3	29	187	78	33	163	3490	1280	612	662	88	32	79
4	24	142	78	31	151	2860	1150	762	741	88	31	86
5	35	119	77	81	147	2140	1040	927	768	89	30	220
6	32	104	76	29	144	1680	990	813	686	85	30	177
7	28	96	76	31	142	2320	896	681	578	86	29	132
8	24	87	76	27	137	5500	842	596	506	77	31	106
9	22	91	202	29	136	6670	806	530	462	69	28	88
10	22	79	319	25	132	6770	780	480	405	67	26	78
11	22	76	236	27	157	5220	699	467	385	69	26	68
12	24	73	196	29	176	3990	631	421	339	65	25	61
13	27	73	177	27	179	3800	586	386	317	58	17	58
14	28	68	161	27	200	3040	605	362	292	63	16	50
15	26	78	150	32	185	2650	560	362	271	60	16	66
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

14194300 NORTH YAMHILL RIVER NEAR FAIRDALE, OR

LOCATION.--Lat 45°21'55", long 123°22'40", in SW¼ sec.25, T.2 S., R.6 W., Yamhill County, Hydrologic Unit 17090008, on right bank 0.4 mi (0.6 km) downstream from small tributary, 1.3 mi (2.1 km) upstream from Kutch Creek, 2.1 mi (3.4 km) west of Fairdale, 9.5 mi (15.3 km) west of Yamhill and at mile 28.4 (45.7 km).

DRAINAGE AREA.--9.03 mi² (23.39 km²).

PERIOD OF RECORD.--October 1958 to March 1966, October 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 560 ft (171 m), from topographic map.

REMARKS.--Records excellent. No regulation or diversion above station.

AVERAGE DISCHARGE.--17 years (water years 1959-65, 1968-77), 49.8 ft³/s (1.410 m³/s), 74.89 in/yr (1,902 mm/yr), 36,080 acre-ft/yr (44.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,330 ft³/s (66.0 m³/s) Dec. 22, 1964, gage height, 6.88 ft (2.097 m), from rating curve extended above 1,000 ft³/s (28.3 m³/s); maximum gage height, 9.7 ft (2.96 m) Dec. 23, 1964 (backwater from debris); minimum discharge, 2.3 ft³/s (0.065 m³/s) Sept. 23-26, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 237 ft³/s (6.71 m³/s) Mar. 8, gage height, 3.72 ft (1.134 m), no peak above base of 350 ft³/s (9.91 m³/s); minimum, 2.4 ft³/s (0.068 m³/s) Aug. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	10	4.6	10	8.5	147	40	14	38	7.4	3.9	5.2
2	4.4	6.6	4.6	10	7.7	98	45	17	34	7.7	3.7	4.9
3	4.6	5.5	4.6	9.3	7.4	84	42	32	33	7.7	3.7	6.3
4	4.2	5.1	4.4	8.5	7.0	68	40	39	33	7.7	3.5	9.7
5	4.0	4.9	4.4	7.7	7.4	58	39	36	28	8.1	3.5	7.4
6	4.0	4.6	4.4	7.4	7.0	54	40	30	26	7.7	3.5	6.0
7	3.8	4.4	4.6	7.0	7.0	184	40	30	23	7.0	3.3	5.2
8	3.6	4.6	11	6.7	6.7	197	39	31	21	6.7	3.3	4.9
9	3.8	4.2	11	6.3	6.7	166	37	28	20	7.0	3.1	4.6
10	4.2	4.2	8.2	6.7	9.3	118	32	26	19	7.0	3.0	4.2
11	4.2	4.0	7.2	7.4	8.9	90	29	25	18	6.7	2.8	3.9
12	4.0	4.0	6.6	10	10	78	27	22	17	6.7	2.6	3.9
13	3.8	4.2	6.0	23	11	65	27	21	15	6.7	2.6	3.7
14	3.8	6.8	5.8	20	9.3	59	25	20	15	6.3	2.6	3.7
15	3.8	8.5	5.5	18	8.9	53	25	24	14	6.0	2.8	3.9
16	3.6	8.2	5.1	16	8.9	48	23	23	16	[illegible]	2.6	3.8
17	3.6	8.2	5.1	14	8.5	43	21	23	13	[illegible]	2.6	[illegible]
18	3.6	7.8	5.1	14	8.1	47	21	21	12	[illegible]	2.8	[illegible]
19	3.6	[illegible]	[illegible]	13	[illegible]	48	[illegible]	21	12	[illegible]	3.0	16
20	3.6	[illegible]	[illegible]	12	12	[illegible]	19	20	12	[illegible]	3.3	16
21	3.6	[illegible]	[illegible]	11	19	[illegible]	19	19	12	[illegible]	[illegible]	[illegible]
22	3.8	[illegible]	[illegible]	10	[illegible]	[illegible]	[illegible]	[illegible]	11	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1976 TOTAL [illegible]

WTR YR 1977 TOTAL [illegible]

14195500 HASKINS CREEK RESERVOIR NEAR MCMINNVILLE, OR

LOCATION.--Lat 45°18'40", long 123°21'15", in NW¼ sec.18, T.3 S., R.5 W., Yamhill County, Hydrologic Unit 17090008, on control tower 250 ft (76 m) upstream from dam on Haskins Creek, 11 mi (18 km) northwest of McMinnville, and at mile 5.1 (8.2 km).

DRAINAGE AREA.--6.88 mi² (17.82 km²).

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by city of McMinnville).

REMARKS.--Reservoir is formed by earthfill dam equipped with five siphon spillways which act as overflow weirs until priming occurs, approximately 835.5 ft (254.66 m) elevation. Capacity of reservoir is 733 acre-ft (904,000 m³) between elevations 761.5 ft (232.11 m), invert of outlet tunnel, and 835.0 ft (254.51 m), crest of siphon spillways. Dead storage negligible. Rated capacity of three siphons is 700 ft³/s (19.8 m³/s) each and remaining two siphons 350 ft³/s (9.91 m³/s) each. Under normal operation, reservoir is filled in the spring (April or May) and drained when fall rains start. There is no planned storage during winter months; however, during periods of heavy runoff, inflow may be greater than capacity of outlet tunnel and there may be some temporary storage. Water is used for municipal supply of city of McMinnville.

COOPERATION.--Elevation and capacity table furnished by city of McMinnville, Water and Light Department.

EXTREMES FOR PERIOD RECORD.--Maximum contents observed, 748 acre-ft (922,000 m³) Nov. 17, 1954, elevation, 835.65 ft (254.706 m); no contents most of time during winter months.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 744 acre-ft (917,000 m³) many days during the year, elevation, 835.5 ft (254.66 m); minimum, 349 acre-ft (430,000 m³) Sept. 17-19, elevation, 814.0 ft (248.11 m).

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	828.5	593	-
Oct. 31	834.5	722	+129
Nov. 30	832.0	666	-56
Dec. 31	831.0	645	-21
CAL YR 1976	-	-	+645
Jan. 31	833.9	708	+63
Feb. 28	835.5	744	+36
Mar. 31	835.5	744	0
Apr. 30	835.5	744	0
May 31	835.5	744	0
June 30	835.5	744	0
July 31	821.0	455	-289
Aug. 31	818.0	408	-47
Sept. 30	817.0	393	-15
WTR YR 1977	-	-	-200

14196001 HASKINS CREEK BELOW RESERVOIR, NEAR MCMINNVILLE, OR

LOCATION.--Lat 45°18'40", long 123°20'55", in NW¼ sec.18, T.3 S., R.5 W., Yamhill County, Hydrologic Unit 17090008, on right bank 800 ft (244 m) downstream from Haskins Creek Reservoir, 11 mi (18 km) northwest of McMinnville, and at mile 5.0 (8.0 km).

DRAINAGE AREA.--6.90 mi² (17.87 km²).

PERIOD OF RECORD.--October 1951 to current year. Maximum discharge for water year 1957, published in WSP 1518, has been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1738: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 707 ft (215 m) above mean sea level (topographic survey of 1955). Prior to Aug. 5, 1952, water-stage recorder at site 600 ft (183 m) upstream at different datum.

REMARKS.--Records good except those below 2 ft³/s (0.06 m³/s), which are fair. All records given herein include flow in pipeline which diverts 600 ft (183 m) above station for municipal supply of McMinnville. Flow regulated by Haskin Creek Reservoir (see station 14195500); during winter months reservoir is empty except when inflow exceeds capacity of outlet tunnel. Monthly figures except for water year 1977 adjusted for diversion from McGuire Lake in the Nestucca River basin and for storage in Haskins Creek Reservoir.

COOPERATION.--Meter readings for diversion and elevations of Haskins Creek Reservoir furnished by city of McMinnville.

AVERAGE DISCHARGE.--25 years (water years 1952-76), 33.7 ft³/s (0.954 m³/s), 66.33 in/yr (1,685 mm/yr), 24,420 acre-ft/yr (30.1 hm³/yr), adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,030 ft³/s (29.2 m³/s) Dec. 23, 1964, gage height, 5.98 ft (1.823 m), from floodmark, from rating curve extended above 400 ft³/s (11.3 m³/s) on basis of slope-area measurement of peak flow; maximum daily, 515 ft³/s (14.6 m³/s) Jan. 21, 1972; minimum daily, 0.10 ft³/s (0.003 m³/s) Oct. 27, 28, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 319 ft³/s (9.03 m³/s) Mar. 8; minimum daily, 1.5 ft³/s (0.042 m³/s) Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]

14198500 MOLALLA RIVER ABOVE PINE CREEK, NEAR WILHOIT, OR

LOCATION.--Lat 45°00'35", long 122°28'45", in NE¼NE¼ sec.31, T.6 S., R.3 E., Clackamas County, Hydrologic Unit 17090009, on right bank 0.5 mi (0.8 km) upstream from Pine Creek, 5 mi (8 km) southeast of Wilhoit, and at mile 32.5 (52.3 km).

DRAINAGE AREA.--97.0 mi² (251.2 km²), at gaging cable 0.2 mi (0.3 km) downstream.

PERIOD OF RECORD.--October 1935 to current year.

REVISED RECORDS.--WSP 1738: Drainage area. WDR OR-75-1: 1967(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 791.35 ft (241.203 m) above mean sea level (Bureau of Public Roads bench mark). Oct. 1, 1935, to Sept. 30, 1945, and Oct. 1, 1945, to Feb. 9, 1961, water-stage recorder at site 0.3 mi (0.5 km) downstream at datums 8.42 ft (2.566 m) and 10.44 ft (3.182 m) lower, respectively. Feb. 10, 1961, to July 21, 1966, water-stage recorder at site 0.2 mi (0.3 km) downstream at datum 5.99 ft (1.826 m) lower.

REMARKS.--Records fair. No regulation or diversion above station. Records given herein are for measuring site.

AVERAGE DISCHARGE.--42 years, 548 ft³/s (15.52 m³/s), 76.72 in/yr (1,949 mm/yr), 397,000 acre-ft/yr (490 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,300 ft³/s (688 m³/s) Dec. 22, 1964, gage height, 16.3 ft (4.97 m), from floodmark, site and datum then in use, from rating curve extended above 5,200 ft³/s (147 m³/s); minimum, 18 ft³/s (0.51 m³/s) Oct. 3, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,430 ft³/s (40.5 m³/s) Apr. 7, gage height, 5.58 ft (1.701 m), no peak above base of 3,600 ft³/s (102 m³/s); minimum, 50 ft³/s (1.42 m³/s) Aug. 16-18, 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	200	71	130	84	750	556	516	395	86	60	120
2	80	160	70	120	80	500	567	772	340	85	60	108
3	85	130	69	110	77	450	499	1200	313	84	59	114
4	90	110	68	105	75	324	556	1050	661	90	57	237
5	85	100	67	100	72	282	778	915	644	90	57	250
6	80	95	66	95	74	346	1060	791	532	89	57	168
7	80	95	65	91	71	850	1270	709	442	83	59	137
8	75	90	76	89	71	1200	1280	616	346	79	57	122
9	70	85	95	83	69	1050	957	591	282	78	57	112
10	75	80	90	84	70	800	715	752	250	78	56	105
11	80	80	80	84	76	620	610	611	219	75	55	100
12	85	75	70	90	76	720	585	667	195	75	53	97
13	75	75	80	244	79	540	649	556	177	76	53	92
14	65	80	80	222	79	670	604	494	162	79	53	90
15	60	90	80	180	78	395	544	467	151	88	52	89
16	60	110	70	186	77	335	591	662	140	85	52	89
17	60	130	70	166	76	275	521	638	133	83	52	88
18	60	150	75	154	77	262	457	[illegible]	125	94	51	88
19	62	130	70	140	76	270	[illegible]	673	118	85	51	[illegible]
20	[illegible]	160	70	137	71	[illegible]	[illegible]	579	115	82	52	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1976 TOTAL [illegible]

WTR YR 1977 TOTAL [illegible]

NOTE.--No gage-height record [illegible].

14200000 MOLALLA RIVER NEAR CANBY, OR

LOCATION.--Lat 45°14'40", long 122°41'10", in NW¼NE¼ sec.9, T.4 S., R.1 E., Clackamas County, Hydrologic Unit 17090009, on left bank at upstream side of Goods bridge, 1.5 mi (2.4 km) south of Canby, and at mile 6.01 (9.67 km).

DRAINAGE AREA.--323 mi^2 (837 km^2).

PERIOD OF RECORD.--August 1928 to September 1959, October 1963 to current year.

REVISED RECORDS.--WSP 1248: 1929-30, 1932.

GAGE.--Water-stage recorder. Datum of gage is 104.00 ft (31.699 m) above mean sea level. Prior to Oct. 24, 1933, nonrecording gage and Oct. 24, 1933, to Sept. 26, 1955, water-stage recorder at present site and at datum 1.00 ft (0.305 m) higher. Sept. 27, 1955, to June 3, 1956, water-stage recorder at site 145 ft (44 m) downstream at present datum. June 4, 1956, to Sept. 30, 1959, water-stage recorder at site 0.3 mi (0.5 km) downstream at datum 1.98 ft (0.604 m) lower. Oct. 1, 1963, to May 4, 1964, nonrecording gage at present site and datum.

REMARKS.--Records fair. No regulation. Numerous small diversions for irrigation above station.

AVERAGE DISCHARGE.--45 years, 1,160 ft^3/s (32.85 m^3/s), 48.77 in/yr (1,239 mm/yr), 840,400 acre-ft/yr (1.04 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,600 ft^3/s (1,230 m^3/s) Dec. 22, 1964, gage height, 16.76 ft (5.108 m); minimum, 20 ft^3/s (0.57 m^3/s) Aug. 27, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,300 ft^3/s (122 m^3/s) Mar. 8, gage height, 5.73 ft (1.747 m), no peak above base of 7,200 ft^3/s (204 m^3/s); minimum, 60 ft^3/s (1.70 m^3/s) Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	160	498	150	300	202	1930	1260	911	850	186	97	150
2	160	440	150	300	194	1530	1380	1210	800	182	92	132
3	178	292	150	290	182	1370	1190	1770	750	178	92	126
4	190	246	150	271	175	1140	1170	1860	1520	202	85	147
5	178	227	150	256	171	987	1380	1760	1500	190	90	292
6	178	223	150	218	167	940	1810	1640	1200	182	88	214
7	175	214	160	223	160	2090	2110	1490	1000	171	88	182
8	164	194	170	218	157	3500	2320	1340	900	160	83	171
9	164	182	200	232	154	2990	1860	1230	800	150	79	150
10	167	182	170	218	154	2190	1410	1510	700	150	75	141
11	186	178	160	232	157	1600	1190	1840	650	144	71	130
12	196	171	150	232	164	1870	1110	1600	600	135	69	129
13	175	164	150	420	171	1720	1190	1350	550	132	67	121
14	150	167	140	638	175	1380	1230	1180	500	118	69	118
15	130	170	140	490	164	1140	1070	1130	470	115	71	115
16	130	291	140	476	154	987	1280	1180	430	107	71	115
17	130	256	140	447	150	854	1230	1500	410	115	67	107
18	130	301	130	407	147	809	1100	2230	380	160	65	105
19	135	316	130	388	147	809	968	1760	360	160	65	121
20	135	284	130	370	157	854	891	1480	350	138	71	284
21	167	266	130	332	206	756	873	1260	338	132	75	416
22	164	218	130	309	292	774	856	1170	303	123	83	401
23	167	210	150	286	[illegible]	947	987	1070	271	118	91	364
24	157	190	170	278	[illegible]	1010	1120	1010	[illegible]	107	129	[illegible]
25	[illegible]	180	210	[illegible]	357	901	1240	[illegible]	[illegible]	102	167	776
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

[illegible]

14200300 SILVER CREEK AT SILVERTON, OR

LOCATION.--Lat 45°00'34", long 122°47'15", in NE¼ sec.34, T.6 S., R.1 W., Marion County, Hydrologic Unit 17090009, on right bank 300 ft (91 m) downstream from railroad bridge in Silverton, 2.5 mi (4.0 km) upstream from Brush Creek, and at mile 3.4 (5.5 km).

DRAINAGE AREA.--47.9 mi² (124.1 km²).

PERIOD OF RECORD.--October 1963 to September 1968, October 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 218.5 ft (66.60 m) above mean sea level.

REMARKS.--Records excellent. No regulation. Several small diversions for irrigation and municipal use above station.

AVERAGE DISCHARGE.--12 years, 211 ft³/s (5.976 m³/s), 59.82 in/yr (1,519 mm/yr), 152,900 acre-ft/yr (189 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,900 ft³/s (167 m³/s) Dec. 22, 1964, gage height, 11.15 ft (3.399 m); minimum, 2.0 ft³/s (0.057 m³/s) Aug. 20, 21, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 775 ft³/s (21.9 m³/s) Feb. 28, gage height, 4.11 ft (1.253 m), no peak above base of 1,200 ft³/s (34.0 m³/s); minimum, 4.8 ft³/s (0.14 m³/s) Aug. 16-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	90	24	51	44	634	229	97	150	30	11	17
2	14	70	22	58	37	493	210	196	127	29	9.8	15
3	24	60	22	55	34	477	188	226	125	30	9.4	22
4	19	50	22	50	32	365	181	252	263	34	9.0	37
5	16	45	22	47	31	299	178	287	238	31	8.3	56
6	15	40	22	35	31	278	186	263	199	35	9.0	33
7	14	36	21	36	30	606	205	226	173	30	7.9	26
8	13	33	24	31	29	643	263	194	150	26	9.4	20
9	13	31	62	29	28	670	255	176	135	23	7.9	19
10	13	29	36	45	29	527	216	311	123	24	6.9	16
11	15	28	30	47	34	439	191	308	112	22	6.9	15
12	16	27	28	51	32	597	171	258	107	21	6.9	15
13	14	26	26	143	45	489	151	218	99	21	6.0	13
14	14	27	25	131	39	401	176	196	91	19	5.2	13
15	13	36	24	105	34	331	164	210	85	19	5.5	13
16	13	50	23	92	32	290	168	207	70	17	5.7	14
17	13	45	23	82	30	255	146	361	72	17	5.7	15
18	12	65	23	74	29	252	133	347	66	23	5.2	16
19	12	55	22	68	28	286	123	281	66	22	6.0	30
20	12	45	22	63	29	261	115	238	62	19	6.0	102
21	12	40	21	58	41	235	112	221	68	16	6.9	66
22	12	36	21	54	127	221	107	188	59	16	8.3	69
23	12	34	24	50	185	243	107	173	54	16	11	66
24	14	33	30	47	173	252	108	171	48	13	20	101
25	76	33	30	44	143	226	112	134	45	15	27	123
26	62	30	60	41	202	205	125	173	43	16	30	92
27	46	28	119	40	236	318	108	176	40	15	26	77
28	36	27	68	37	668	290	100	171	36	13	16	67
29	30	26	77	36	---	281	96	160	32	13	30	67
30	28	25	60	36	---	252	84	133	32	11	37	117
31	30	---	56	41	---	232	---	131	---	11	26	---
TOTAL	646	1200	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	20.8	40.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	76	90	119	143	668	670	263	361	263	35	[illegible]	[illegible]
MIN	12	25	21	29	28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1976 TOTAL [illegible]
WTR YR 1977 TOTAL [illegible]

14201500 BUTTE CREEK AT MONITOR, OR

LOCATION.--Lat 45°06'06", long 122°44'42", in SE¼SE¼ sec.25, T.5 S., R.1 W., Marion County, Hydrologic Unit 17090009, on left bank at downstream side of highway bridge at Monitor and at mile 7.7 (12.4 km).

DRAINAGE AREA.--58.7 mi² (152.0 km²).

PERIOD OF RECORD.--January to December 1936, October 1940 to September 1952, October 1966 to current year. Monthly discharge only for January to December 1936, published in WSP 1318.

REVISED RECORDS.--WSP 2135: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 155 ft (47.2 m) from topographic map. Jan. 20 to Oct. 22, 1936, nonrecording gage at present site at different datum. Oct. 23 to Dec. 19, 1936, nonrecording gage at site 70 ft (21 m) downstream at different datum. Oct. 1, 1940, to Sept. 30, 1952, nonrecording gage at present site at datum 151.35 ft (46.131 m) above mean sea level.

REMARKS.--Records good. No regulation. Diversions for irrigation by pumping above station.

AVERAGE DISCHARGE.--23 years (water years 1941-52, 1967-77), 224 ft³/s (6.344 m³/s), 51.82 in/yr (1,316 mm/yr), 162,300 acre-ft/yr (200 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,310 ft³/s (207 m³/s) Jan. 21, 1972, gage height, 15.26 ft (4.651 m), from floodmark; minimum, 0.15 ft³/s (0.004 m³/s) Aug. 25, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 959 ft³/s (27.2 m³/s) Mar. 8, gage height, 6.53 ft (1.990 m), no peak above base of 1,500 ft³/s (42.5 m³/s); minimum, 0.40 ft³/s (0.011 m³/s) Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	64	17	43	29	445	203	124	136	25	46	20
2	14	49	16	45	26	282	187	180	117	23	38	15
3	15	36	15	46	24	232	174	237	113	23	42	17
4	18	30	15	41	23	180	172	237	229	35	25	23
5	16	26	14	37	23	147	185	244	217	30	22	53
6	16	23	14	38	22	143	217	232	178	30	16	32
7	16	21	14	35	22	524	259	207	147	24	24	23
8	16	20	17	34	21	790	324	180	122	20	48	20
9	16	19	40	38	20	753	277	168	109	19	33	16
10	16	18	33	33	21	555	217	259	100	20	14	14
11	19	17	27	34	27	403	189	294	92	18	1.2	13
12	20	16	24	41	25	559	174	246	85	16	2.0	8.2
13	18	16	23	77	29	452	187	205	77	15	54	8.2
14	20	17	22	43	28	346	170	178	72	14	71	7.4
15	20	24	21	63	25	277	154	176	66	11	51	8.2
16	20	42	22	56	24	232	168	174	62	11	5.5	7.8
17	26	38	22	52	23	198	141	279	56	14	5.2	9.5
18	26	53	22	50	22	183	126	299	52	22	4.3	8.2
19	[illegible]	41	22	[illegible]	21	176	112	251	51	20	5.2	17
20	17	36	25	46	22	166	107	212	[illegible]	16	5.5	43
21	18	30	19	42	32	152	[illegible]	[illegible]	[illegible]	14	6.9	71
22	19	28	18	38	64	147	[illegible]	[illegible]	44	10	9.1	54
23	[illegible]	25	21	35	69	176	[illegible]	[illegible]	41	9.1	9.1	[illegible]
24	17	23	[illegible]	32	85	169	116	[illegible]	[illegible]	9.1	23	101
25	41	23	24	31	[illegible]	174	[illegible]	[illegible]	[illegible]	9.0	26	[illegible]
26	[illegible]	22	[illegible]	32	65	[illegible]	136	[illegible]	[illegible]	10	[illegible]	[illegible]
27	[illegible]	20	[illegible]	31	[illegible]	[illegible]	117	[illegible]	31	[illegible]	[illegible]	[illegible]
28	[illegible]	18	[illegible]	28	[illegible]	261	[illegible]	[illegible]	[illegible]	9.1	[illegible]	[illegible]
29	17	[illegible]	[illegible]	[illegible]	---	251	[illegible]	[illegible]	[illegible]	9.1	21	[illegible]
30	16	17	[illegible]	28	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1976 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible] AC-FT [illegible]
WTR YR 1977 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible] AC-FT [illegible]

14202965 HENRY HAGG LAKE NEAR GASTON, OR

LOCATION.--Lat 45°28'25", long 123°11'51", in SE¼NE¼ sec.20, T.1 S., R.4 W., Washington County, Hydrologic Unit 17090010, at left end of Scoggins Dam on Scoggins Creek, 3.8 mi (6.1 km) northwest of Gaston, and at mile 4.9 (7.9 km).

DRAINAGE AREA.--38.7 mi^2 (100.2 km^2).

PERIOD OF RECORD.--January 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by earthfill dam with gated concrete spillway and a gated outlet tunnel. Storage began in January 1975. Total capacity at elevation 305.7 ft (93.18 m), maximum water-surface elevation, is 63,360 acre-ft (78.1 hm^3), of which 56,160 acre-ft (69.2 hm^3) is active storage above elevation 239.3 ft (72.94 m), proposed minimum pool. Reservoir is used for irrigation, flood control, and recreation. Figures given herein represent active storage.

COOPERATION.--Capacity table and monthend elevations furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 53,660 acre-ft (66.2 hm^3) Apr. 30, 1975, elevation, 303.52 ft (92.513 m); minimum observed since first filling, 808 acre-ft (1.00 hm^3) Oct. 31, 1975, elevation, 237.21 ft (72.302 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 34,990 acre-ft (43.1 hm^3) June 30, elevation, 285.56 ft (87.039 m); minimum, 21,110 acre-ft (26.0 hm^3) Sept. 30, elevation, 269.84 ft (82.247 m).

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	282.39	32,000	-
Oct. 31	272.83	23,560	-8,440
Nov. 30	271.71	22,630	-930
Dec. 31	271.71	22,630	0
CAL YR 1976	-	-	-4,210
Jan. 31	271.96	22,840	+210
Feb. 28	273.38	24,030	+1,190
Mar. 31	283.10	32,660	+8,630
Apr. 30	284.74	34,210	+1,550
May 31	285.22	34,660	+450
June 30	285.56	34,990	+330
July 31	280.05	29,860	-5,130
Aug. 31	274.41	24,900	-4,960
Sept.30	269.84	21,110	-3,790
WTR YR 1977	-	-	-10,890

14202980 SCOGGINS CREEK BELOW HENRY HAGG LAKE, NEAR GASTON, OR

LOCATION.--Lat 45°28'10", long 123°11'56", in SE¼NE¼ sec.20, T.1 S., R.4 W., Washington County, Hydrologic Unit 17090010, on left bank 600 ft (183 m) downstream from Scoggins Dam, 800 ft (244 m) upstream from small left bank tributary, 3.7 mi (6.0 km) northwest of Gaston, and at mile 4.8 (7.7 km).

DRAINAGE AREA.--38.8 mi² (100.5 km²).

PERIOD OF RECORD.--January 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is 187.48 ft (57.144 m) above mean sea level.

REMARKS.--Records excellent. Flow completely regulated by Henry Hagg Lake since January 1975. Discharge not adjusted for storage or release from Henry Hagg Lake as evaporation from reservoir at times exceeds natural flow.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,160 ft³/s (32.9 m³/s) Jan. 22, 1976, gage height, 13.12 ft (3.999 m); minimum, 1.5 ft³/s (0.042 m³/s) Sept. 26, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 244 ft³/s (6.91 m³/s) Oct. 1, gage height, 6.55 ft (1.996 m); minimum, 1.5 ft³/s (0.042 m³/s) Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	242	66	19	14	7.4	11	10	12	5.8	73	82	85
2	242	23	16	14	7.4	11	10	27	5.8	81	79	84
3	192	23	14	14	7.4	11	10	34	5.8	80	79	84
4	92	23	14	14	7.4	11	11	36	5.8	80	80	84
5	92	23	14	14	7.4	11	11	37	5.8	81	80	83
6	82	23	14	13	7.4	11	10	30	8.3	82	81	83
7	75	23	14	13	8.6	12	10	24	10	62	81	83
8	78	23	14	13	10	12	10	24	10	67	81	82
9	78	23	14	13	10	12	10	24	10	82	79	81
10	78	23	14	13	10	12	10	24	10	82	79	81
11	78	23	14	13	10	11	13	24	10	82	81	81
12	78	23	14	13	10	12	17	24	10	82	81	81
13	77	23	14	13	10	12	17	22	10	82	81	79
14	77	23	14	13	10	12	13	21	10	82	81	77
15	100	23	14	13	10	12	10	21	10	82	82	77
16	140	23	14	13	10	12	10	23	10	82	82	77
17	140	23	14	13	10	11	10	24	10	82	84	77
18	141	23	14	13	10	9.9	11	24	10	82	84	77
19	141	23	14	13	10	9.9	10	21	10	86	84	87
20	141	23	14	13	10	9.9	20	18	13	84	94	91
21	141	23	14	13	10	9.9	20	18	22	82	84	91
22	141	23	14	13	10	10	20	18	25	81	84	87
23	140	23	14	13	10	10	20	18	21	81	86	84
24	141	23	14	13	10	10	20	18	18	82	88	84
25	140	23	14	11	10	10	10	18	15	82	82	[illegible]
26	140	23	14	7.6	11	11	11	8.1	15	82	91	[illegible]
27	140	23	14	7.6	11	10	10	9.3	14	82	91	[illegible]
28	140	23	14	7.6	11	10	10	9.8	19	81	91	[illegible]
29	130	23	14	7.6	---	10	10	9.0	[illegible]	85	87	[illegible]
30	130	23	14	7.6	---	10	11	9.0	[illegible]	85	84	[illegible]
31	129	---	14	7.6	---	10	---	8.2	---	87	87	---
TOTAL	3912	732	441	372.6	256.2	334.6	366	618.8	431.3	2462	2566	[illegible]
MEAN	126	24.4	14.2	12.0	9.15	10.8	12.2	20.0	14.4	79.4	82.8	[illegible]
MAX	242	66	19	14	11	12	20	37	[illegible]	87	94	91
MIN	75	23	14	7.6	7.4	9.9	10	8.1	5.8	62	79	[illegible]
AC-FT	7760	1450	875	739	508	664	726	1230	855	4880	5090	[illegible]

CAL YR 1976 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]
WTR YR 1977 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]

14203500 TUALATIN RIVER NEAR DILLEY, OR

LOCATION.--Lat 45°28'30", long 123°07'23", in NE¼NW¼ sec.24, T.1 S., R.4 W., Washington County, Hydrologic Unit 17090010, on left bank 5 ft (2 m) upstream from highway bridge, 1.0 mi (1.6 km) south of Dilley, 1.2 mi (1.9 km) downstream from Scoggins Creek, and at mile 58.81 (94.63 km).

DRAINAGE AREA.--125 mi^2 (324 km^2).

PERIOD OF RECORD.--October 1939 to current year. Prior to October 1940 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1935: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 147.57 ft (44.979 m) above mean sea level. Prior to June 16, 1950, nonrecording gage at several sites within 200 ft (61 m) of present site at datum 4.00 ft (1.219 m) higher. June 16, 1950, to Aug. 10, 1966, water-stage recorder at present site at datum 4.00 ft (1.219 m) higher.

REMARKS.--Records good. Diurnal fluctuation caused by operation of millpond on Scoggins Creek above station and regulation by Henry Hagg Lake since January 1975. Diversions above station of approximately 3,000 acre-ft (3.70 hm^3) from J.W. Barney Reservoir on the Middle Fork of North Fork Trask River for municipal water supply and irrigation in Wapato Lake area.

AVERAGE DISCHARGE.--38 years, 106 ft^3/s (2.94 m^3/s), 46.11 in/yr (1,120 mm/yr), 294,100 acre-ft/yr (363 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,100 ft^3/s (484 m^3/s) Dec. 22, 1964, gage height, 19.34 ft (5.895 m), from rating curve extended above 6,000 ft^3/s (170 m^3/s); minimum, 0.08 ft^3/s (0.002 m^3/s) Sept. 3, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 823 ft^3/s (23.3 m^3/s) Mar. 9, gage height, 14.49 ft (4.417 m); minimum, 14 ft^3/s (0.40 m^3/s) Jan. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	272	132	38	38	25	527	170	56	192	85	87	158
2	271	53	35	38	26	362	169	74	140	90	88	102
3	267	48	33	37	23	314	157	106	110	90	76	145
4	260	46	33	36	23	248	147	142	120	100	78	113
5	225	42	33	32	23	197	140	143	104	105	78	121
6	211	41	36	29	26	176	135	127	91	105	79	111
7	191	41	36	29	26	310	132	97	86	69	82	105
8	194	39	36	28	25	638	127	99	81	63	83	101
9	193	38	56	27	25	706	117	91	77	60	79	88
10	193	38	50	27	25	606	110	65	65	93	78	87
11	195	39	48	31	30	[illegible]	102	83	59	90	75	[illegible]
12	[illegible]	[illegible]	[illegible]	30	31	[illegible]	100	78	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	37	[illegible]	30	37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	77	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	----	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	----	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	----	[illegible]	[illegible]	----	[illegible]	----	[illegible]	----	[illegible]	[illegible]	----
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1976 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]
WTR YR 1977 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]

14204500 GALES CREEK NEAR FOREST GROVE, OR

LOCATION.--Lat 45°33'20", long 123°11'10", in SE¼ sec.21, T.1 N., R.4 W., Washington County, Hydrologic Unit 17090010, on left bank 50 ft (15 m) downstream from Roderick road bridge, 0.1 mi (0.2 km) below Kelly Creek, 2.5 mi (4.0 km) southeast of town of Gales Creek, 4.5 mi (7.2 km) northwest of Forest Grove, and at mile 8.7 (14.0 km).

DRAINAGE AREA.--66.1 mi^2 (171.2 km^2).

PERIOD OF RECORD.--October 1940 to September 1956, October 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 201.81 ft (61.512 m) above mean sea level. Prior to Sept. 13, 1941, at site 1.4 mi (2.3 km) downstream at datum 14.33 ft (4.368 m) lower. Sept. 13, 1941, to June 19, 1952, at downstream side of bridge at datum 1.44 ft (0.439 m) higher. June 20, 1952, to Jan. 3, 1956, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records excellent. No regulation. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--23 years, 231 ft^3/s (6.542 m^3/s), 47.46 in/yr (1,205 mm/yr), 167,400 acre-ft/yr (206 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,410 ft^3/s (182 m^3/s) Feb. 17, 1949, gage height, 10.90 ft (3.322 m), from floodmark, site and datum then in use; maximum gage height, 12.95 ft (3.947 m), from floodmark, Jan. 21, 1972; minimum discharge, 1 ft^3/s (0.028 m^3/s) Aug. 19, 1947.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,270 ft^3/s (36.0 m^3/s) Mar. 8, gage height, 5.54 ft (1.689 m), no peak above base of 2,000 ft^3/s (56.6 m^3/s); minimum, 3.0 ft^3/s (0.085 m^3/s) Aug. 13, 14, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	47	16	29	29	499	131	42	112	11	6.4	9.7
2	8.3	27	16	30	27	348	122	50	77	11	6.0	8.3
3	9.7	21	16	26	25	287	115	62	65	14	5.7	9.3
4	9.7	18	16	24	23	229	109	69	78	16	5.5	21
5	9.3	16	16	23	23	191	103	63	69	17	6.0	22
6	9.3	16	16	23	23	171	100	57	58	19	5.5	13
7	9.0	15	16	20	23	423	96	51	51	15	5.5	10
8	8.7	15	26	19	22	816	92	62	46	13	5.5	8.3
9	8.7	14	42	18	22	953	88	54	43	12	4.8	7.8
10	9.3	14	33	22	25	586	84	51	39	13	4.7	7.2
11	10	14	28	23	30	423	79	47	37	12	4.0	6.7
12	9.7	14	25	24	31	355	76	44	35	12	3.7	6.4
13	9.3	14	22	30	31	298	72	42	33	12	3.5	6.4
14	9.0	17	22	36	31	269	69	41	31	12	3.5	6.4
15	9.3	26	20	37	29	254	67	42	29	11	5.1	6.9
16	9.3	44	19	41	28	229	65	42	26	9.3	4.8	7.5
17	9.3	33	19	38	27	205	62	40	25	9.7	4.0	7.8
18	9.0	37	19	36	26	189	59	38	24	12	3.8	11
19	9.0	29	18	35	25	176	57	36	22	11	4.7	34
20	9.0	24	18	32	30	162	56	35	22	9.3	5.5	28
21	9.3	21	17	31	46	150	56	34	25	9.0	6.4	22
22	9.7	19	16	28	134	139	55	32	22	8.3	6.7	18
23	11	18	19	26	114	141	51	32	19	7.8	7.8	22
24	18	17	19	25	95	141	49	32	16	7.2	23	27
25	34	19	20	24	102	128	48	32	15	6.9	23	43
26	22	18	59	21	148	118	48	37	15	8.0	30	38
27	16	17	90	23	160	150	47	38	14	7.5	14	27
28	14	16	55	25	395	162	45	41	14	6.9	12	26
29	14	16	43	22	---	160	43	38	12	6.9	12	26
30	13	16	36	24	---	148	42	37	12	6.7	16	26
31	58	---	31	24	---	139	---	70	---	6.7	12	---
TOTAL	401.9	632	828	839	1724	8639	2186	1391	1086	333.2	261.1	512.7
MEAN	13.0	21.1	26.7	27.1	61.6	279	72.9	44.9	36.2	10.7	8.42	17.1
MAX	58	47	90	41	395	953	131	70	112	19	30	43
MIN	8.0	14	16	18	22	118	42	32	12	6.7	3.5	6.4
CFSM	.20	.32	.40	.41	.93	4.22	1.10	.68	.55	.16	.13	.26
IN.	.23	.36	.47	.47	.97	4.86	1.23	.78	.61	.19	.15	.29
AC-FT	797	1250	1640	1660	3420	17140	4340	2760	2150	661	518	1020

CAL YR 1976 TOTAL 59646.5 MEAN 163 MAX 2000 MIN 7.2 CFSM 2.47 IN 33.57 AC-FT 118300
WTR YR 1977 TOTAL 18833.9 MEAN 51.6 MAX 953 MIN 3.5 CFSM .78 IN 10.60 AC-FT 37360

14207000 OSWEGO CANAL NEAR LAKE OSWEGO, OR

LOCATION.--Lat 45°23'20", long 122°43'10", in NW¼NW¼ sec.20, T.2 S., R. 1 E., Clackamas County, Hydrologic Unit 17090010, on left bank 0.4 mi (0.6 km) downstream from point of diversion on Tualatin River, 1.0 mi (1.6 km) upstream from Lake Oswego, and 3.5 mi (5.6 km) southwest of Oswego.

PERIOD OF RECORD.--October 1928 to current year. October 1951 to September 1970, Oswego Canal records were not published separately, but were combined with records for Tualatin River at West Linn.

GAGE.--Water-stage recorder. Datum of gage is 96.50 ft (29.413 m) above mean sea level. Prior to Nov. 15, 1928, nonrecording gage 800 ft (244 m) upstream at different datum. Nov. 15, 1928, to June 29, 1939, nonrecording gage 900 ft (274 m) downstream at datum about 1.0 ft (0.3 m) higher.

REMARKS.--Records good. Oswego Canal diverts water from Tualatin River in NW¼ sec.20, but diversion dam is in NE¼ sec.33, about 3 mi (5 km) downstream. Water used for recreational facilities and development of power below Lake Oswego and returned to Willamette River at that point.

AVERAGE DISCHARGE.--49 years, 70.4 ft^3/s (1.994 m^3/s), 51,000 acre-ft/yr (62.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 6,000 ft^3/s (170 m^3/s) Dec. 23, 1933; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	61	43	39	48	103	50	54	53	46	52	57
2	52	66	42	36	49	107	44	55	55	52	56	57
3	52	65	41	36	50	98	46	57	51	60	57	56
4	54	50	41	37	50	84	45	62	46	67	55	57
5	53	41	41	37	49	74	46	64	46	72	55	57
6	54	38	40	35	49	65	46	66	52	70	55	57
7	45	37	39	36	47	61	45	64	53	59	55	57
8	26	36	40	43	46	68	43	62	53	54	56	55
9	25	35	41	44	46	98	42	59	53	53	55	53
10	25	36	42	45	46	115	39	59	52	52	55	53
11	24	36	46	46	46	116	56	58	50	58	53	52
12	23	36	49	48	47	94	77	54	48	61	44	52
13	22	36	49	58	48	71	74	52	43	59	28	56
14	29	37	48	70	48	66	69	49	40	57	38	59
15	53	39	47	74	50	59	65	48	37	56	41	58
16	59	46	46	75	51	56	64	49	37	56	44	56
17	66	52	45	75	51	53	58	53	33	54	46	54
18	74	57	45	72	51	50	53	54	28	57	47	55
19	69	58	44	69	50	47	51	53	22	58	48	53
20	53	56	44	67	50	46	56	51	15	57	49	54
21	49	53	43	63	53	50	59	50	14	54	53	58
22	48	50	43	61	62	52	58	48	12	54	58	59
23	47	48	44	60	77	51	59	49	30	53	60	58
24	48	46	49	58	95	50	59	51	46	52	70	52
25	51	46	51	55	89	50	58	51	44	50	62	50
26	53	45	57	53	85	47	56	53	41	49	60	54
27	60	45	61	52	85	45	56	53	39	47	60	58
28	63	44	64	49	97	47	56	54	39	51	59	56
29	61	44	64	48	---	51	54	54	45	54	58	53
30	59	43	49	47	---	53	53	53	45	53	57	52
31	58	---	43	47	---	51	---	54	---	51	57	---
TOTAL	1506	1382	1441	1635	1615	2078	1637	1693	1222	1726	1643	1658
MEAN	48.6	46.1	46.5	52.7	57.7	67.0	54.6	54.6	40.7	55.7	53.0	55.3
MAX	74	66	64	75	97	116	77	66	55	72	70	59
MIN	22	35	39	35	46	45	39	48	12	46	28	50
AC-FT	2990	2740	2860	3240	3200	4120	3250	3360	2420	3420	3260	3290

CAL YR 1976 TOTAL 20101.8 MEAN 54.9 MAX 177 MIN 3.4 AC-FT 39870
WTR YR 1977 TOTAL 19236.0 MEAN 52.7 MAX 116 MIN 12 AC-FT 38150

14207500 TUALATIN RIVER AT WEST LINN, OR
(National stream-quality accounting network station)

LOCATION.--Lat 45°21'03", long 122°40'30", in SW¼ sec.34, T.2 S., R.1 E., Clackamas County, Hydrologic Unit 17090010, on left bank 300 ft (90 m) upstream from bridge on State Highway 212, 0.4 mi (0.6 km) west of West Linn city limits, and at mile 1.8 (2.9 km).

DRAINAGE AREA.--706 mi^2 (1,829 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1928 to current year. Prior to October 1960, published as "near Willamette."

REVISED RECORDS.--WSP 1014: 1943. WSP 1184: 1947. WSP 1248: 1941. WSP 1935: Drainage area. WDR OR-75-1: 1974(M).

GAGE.--Water-stage recorder. Datum of gage is 85.61 ft (26.094 m) above mean sea level (levels by Corps of Engineers). Prior to June 12, 1941, nonrecording gage at datum 1.02 ft (0.311 m) higher.

REMARKS.--Water-discharge records good. October 1951 to September 1970, all records published for this station included the daily flow of Oswego Canal. October 1971 to current year, maximum discharge only includes flow in Oswego Canal. Oswego Canal diverts at point 5.0 mi (8.0 km) above station for development of power between outlet of Lake Oswego and Willamette River. Some regulation in low-water season by flashboards on crest of diversion dam for Oswego Canal and regulation by Henry Hagg Lake since January 1975. Several diversions above station for irrigation.

AVERAGE DISCHARGE.--49 years, 1,529 ft^3/s (43.30 m^3/s), 29.41 in/yr (747 mm/yr), 1,108,000 acre-ft/yr (1.37 km^3/yr), adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,300 ft^3/s (660 m^3/s) Dec. 23, 1933, gage height, 17.72 ft (5.401 m); minimum daily, 0.20 ft^3/s (0.006 m^3/s) July 30 to Aug. 2, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,870 ft^3/s (81.3 m^3/s) Mar. 12, gage height, 6.79 ft (2.070 m); minimum, 18 ft^3/s (0.51 m^3/s) June 30, July 1.

REVISIONS.--The maximum discharges for some water years have been revised, as shown in the following table. They supersede figures published in annual reports for 1971-76.

Water year	Date	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Water year	Date	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
1971	Jan. 20, 1971	11,700	331	12.72	3.877	1974	Jan. 18, 1974	22,300	632	16.31	4.971
1972	Jan. 24, 1972	14,900	422	14.18	4.322	1975	Jan. 18, 1975	8,750	248	10.65	3.246
1973	Dec. 27, 1972	7,840	222	10.50	3.200	1976	Jan. 18, 1976	7,160	203	9.78	2.981

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	308	273	130	221	113	953	685	188	308	18	58	176
2	311	298	128	203	118	1480	643	185	441	20	55	158
3	308	321	124	188	118	1680	601	219	531	26	53	144
4	301	253	120	185	117	1470	555	264	555	30	44	155
5	273	192	117	182	117	1230	517	288	555	39	31	176
6	213	158	113	170	115	991	485	304	512	47	31	176
7	241	144	113	134	117	867	458	304	413	52	31	170
8	182	134	117	108	111	1000	441	288	341	62	31	146
9	158	122	120	111	108	1800	437	267	288	61	31	132
10	155	122	124	115	109	2420	417	270	256	57	37	118
11	167	124	144	118	111	2660	317	276	232	57	44	115
12	167	122	158	126	113	2800	304	270	210	58	111	109
13	170	118	155	170	117	2670	314	241	185	59	73	104
14	124	118	148	219	118	2270	314	213	167	59	32	95
15	103	126	142	238	118	1840	311	208	167	53	31	115
16	106	140	138	238	120	1570	308	213	155	57	28	120
17	108	170	132	224	118	1370	298	235	142	69	26	113
18	148	216	132	210	117	1200	292	250	136	68	25	115
19	208	221	130	200	115	1060	279	238	130	80	26	173
20	227	210	126	192	115	965	270	221	128	89	27	221
21	208	195	122	179	122	879	259	205	124	81	28	232
22	203	176	120	164	161	797	253	192	122	71	30	253
23	205	158	128	155	238	743	253	179	117	65	35	304
24	213	148	134	146	389	732	250	176	96	68	61	308
25	232	144	140	138	441	727	247	182	86	90	192	282
26	247	136	176	134	409	685	238	192	71	81	366	273
27	261	134	250	128	401	638	232	198	61	77	378	279
28	270	132	288	120	570	638	221	205	44	73	301	267
29	259	130	363	115	---	721	210	203	19	68	219	235
30	247	128	311	113	---	753	200	198	19	62	192	227
31	250	---	259	109	---	727	---	221	---	60	188	---
TOTAL	6573	5063	4902	5053	5036	40336	10609	7093	6611	1857	2815	5491
MEAN	212	169	158	163	180	1301	354	229	220	59.9	90.8	183
MAX	311	321	363	238	570	2800	685	304	555	90	378	308
MIN	103	118	113	108	108	638	200	176	19	18	25	95
AC-FT	13040	10040	9720	10020	9990	80010	21040	14070	13110	3680	5580	10890
MEAN†	261	215	205	216	238	1,368	408	283	261	115	144	238
CFSM†	.37	.30	.29	.31	.34	1.94	.58	.40	.37	.16	.20	.34
IN.†	.43	.34	.33	.35	.35	2.23	.64	.46	.41	.19	.23	.38
AC-FT†	16,030	12,780	12,580	13,260	13,190	84,130	24,290	17,430	15,530	7,100	8,840	14,180

CAL YR 1976 TOTAL 430,634 MEAN 1,177 MAX 6,930 MIN 90 AC-FT 854,200 MEAN† 1,235 CFSM† 1.75 IN.† 23.71 AC-FT† 894,070
WTR YR 1977 TOTAL 101,439 MEAN 278 MAX 2,800 MIN 18 AC-FT 201,200 MEAN† 331 CFSM† .47 IN.† 6.35 AC-FT† 239,340

† Adjusted for diversion of Oswego Canal.

14207500 TUALATIN RIVER AT WEST LINN, OR--Continued
(National stream quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1975 to current year.
WATER TEMPERATURES: October 1975 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily recorded, 237 micromhos/cm Feb. 15, 1977; minimum, 68 micromhos/cm Mar. 3, 4, 29, 1976.
WATER TEMPERATURES: Maximum, 27.5°C Aug. 6, 8, 9, 11, 17, 1977; minimum, 2.5°C Jan. 8-12, 1977.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily recorded, 237 micromhos/cm Feb. 15; minimum recorded, 85 micromhos/cm Mar. 11.
WATER TEMPERATURES: Maximum, 27.5°C Aug. 6, 8, 9, 11, 17; minimum, 2.5°C Jan. 8-12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	DISSOLVED OXYGEN (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
OCT												
29...	1000	256	10.5	6.9	--	130	--	84	20	11	3.3	10
NOV												
23...	1000	147	10.5	7.5	--	206	<1	89	24	16	5.6	15
DEC												
16...	1100	130	4.9	7.2	10.7	199	B28	85	26	16	5.7	15
JAN												
17...	1130	213	3.4	7.3	10.1	187	B12	--	24	16	4.7	12
FEB												
16...	1100	122	6.1	7.1	9.4	233	88	55	24	16	6.1	18
MAR												
28...	1300	638	9.1	7.1	9.8	123	81	39	19	10	3.6	8.1
MAY												
02...	1100	180	15.5	6.9	8.8	159	27	42	4.3	13	4.3	12
JUN												
01...	1130	292	15.3	7.0	8.6	169	27	31	18	15	4.3	12
27...	1245	61	22.2	8.0	10.9	194	73	53	18	15	4.9	16
JUL												
18...	1200	65	20.0	7.9	11.1	225	72	50	18	18	5.0	18
SEP												
06...	1200	174	18.5	6.5	6.8	181	64	87	19	15	4.5	14

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT											
29...	41	0	14	12	.1	1.5	.70	2.2	.56	41	7
NOV											
23...	68	0	14	15	.2	1.3	.83	2.1	.56	63	7
DEC											
16...	70	0	9.1	15	.1	1.6	1.5	3.1	.65	63	6
JAN											
17...	60	0	11	18	.1	1.6	1.3	2.9	.58	59	10
FEB											
16...	64	0	15	18	.2	2.0	.06	2.1	.78	65	13
MAR											
28...	40	0	7.8	8.2	.1	1.2	7.4	8.6	.29	40	7
MAY											
02...	52	0	10	12	.1	1.7	.95	2.7	.43	50	8
JUN											
01...	60	0	11	11	.2	.97	1.2	2.2	.35	55	6
27...	63	0	16	15	.1	1.6	1.3	2.9	.34	58	6
JUL											
18...	70	0	16	18	.2	1.6	1.4	3.0	.30	66	8
SEP											
06...	48	0	15	14	.2	2.0	1.1	3.1	.49	56	17

B: RESULTS BASED ON NON-IDEAL COLONY COUNT

14207500 TUALATIN RIVER AT WEST LINN, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	SODIUM AD-SORP-TION RATIO	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TUR-BID-ITY (JTU)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	ALKA-LINITY AS CACO3 (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT 29...	.7	96	93	67.7	.13	4	5	3.5	50	34	4.1
NOV 23...	.8	146	126	58.0	.20	5	7	2.8	85	56	--
DEC 16...	.8	137	124	48.1	.19	4	6	2.1	86	57	--
JAN 17...	.7	120	118	69.0	.16	10	16	9.2	96	49	3.8
FEB 16...	1.0	144	132	47.4	.20	6	6	2.0	79	53	--
MAR 28...	.6	89	78	153	.12	10	13	22	94	33	--
MAY 02...	.7	103	84	50.1	.14	2	9	4.4	96	43	3.9
JUN 01...	.7	--	103	81.2	.14	6	10	7.9	91	49	--
27...	.9	126	118	20.8	.17	8	20	3.3	65	52	--
JUL 18...	1.0	144	131	25.5	.20	4	2	.35	75	57	4.7
SEP 06...	.8	116	109	54.5	.16	4	10	4.7	72	39	--

DATE	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)
OCT 29...	710	130	90	70	2	1	<10	2	0	0	<50
JAN 17...	1500	90	110	90	1	1	<10	1	0	0	<50
MAY 02...	900	80	160	70	1	1	<10	2	0	0	<50
JUL 18...	420	50	200	100	1	1	<10	1	10	0	<50

DATE	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)
OCT 29...	0	10	7	100	0	30	20	0	0	.0	.0
JAN 17...	0	20	13	<100	1	40	20	0	0	1.2	.0
MAY 02...	0	20	15	100	3	50	50	0	0	.0	.0
JUL 18...	0	10	6	<100	5	30	10	0	0	.2	.0

14207500 TUALATIN RIVER AT WEST LINN, OR--Continued

PESTICIDE ANALYSES

DATE	TOTAL ALDRIN (UG/L)	TOTAL LINDANE (UG/L)	TOTAL CHLORDANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DIELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL ETHION (UG/L)	TOTAL TOXAPHENE (UG/L)	TOTAL HEPTACHLOR (UG/L)	TOTAL HEPTACHLOR EPOXIDE (UG/L)
NOV , 1976 23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB , 1977 16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN 01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP 06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	TOTAL METHOXYCHLOR (UG/L)	TOTAL MALATHION (UG/L)	TOTAL PARATHION (UG/L)	TOTAL DIAZINON (UG/L)	TOTAL METHYL PARATHION (UG/L)	TOTAL ATRAZINE (UG/L)	SIMAZINE TOTAL COULSON COND. (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)	TOTAL TRITHION (UG/L)	TOTAL METHYL TRITHION (UG/L)
NOV , 1976 23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB , 1977 16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN 01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP 06...	ND	ND	ND	ND	ND	ND	.66	ND	ND	ND	ND	ND

DATE	ALDRIN IN BOTTOM MATERIAL (UG/KG)	LINDANE IN BOTTOM MATERIAL (UG/KG)	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	DDT IN BOTTOM MATERIAL (UG/KG)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	ETHION IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR IN BOTTOM MATERIAL (UG/KG)	MALATHION IN BOTTOM MATERIAL (UG/KG)
NOV , 1976 23...	ND	ND	6	ND	.9	ND	ND	ND	ND	ND	ND	ND

DATE	PARATHION IN BOTTOM MATERIAL (UG/KG)	DIAZINON IN BOTTOM MATERIAL (UG/KG)	METHYL PARATHION IN BOTTOM MATERIAL (UG/KG)	ATRAZINE IN BOTTOM MATERIAL (UG/KG DRY SOLIDS)	SIMAZINE IN BOTTOM MATERIAL (UG/KG DRY SOLIDS)	P,P' DDD IN BOTTOM MATERIAL (UG/KG)	2,4-D IN BOTTOM MATERIAL (UG/KG)	2,4,5-T IN BOTTOM MATERIAL (UG/KG)	SILVEX IN BOTTOM MATERIAL (UG/KG)	TRITHION IN BOTTOM MATERIAL (UG/KG)	METHYL TRITHION IN BOTTOM MATERIAL (UG/KG)
NOV , 1976 23...	ND	ND	ND	ND	ND	22	ND	ND	ND	ND	ND

ND: SPECIFICALLY LOOKED FOR BUT NOT DETECTED

14207500 TUALATIN RIVER AT WEST LINN, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO JULY 1977

DATE	OCT 29,76		NOV 23,76		DEC 16,76		JAN 17,77		FEB 16,77	
TIME	1000		1500		1100		1130		1100	
TOTAL CELLS/ML	3500		400		310		160		2400	
DIVERSITY: DIVISION	1.0		1.0		1.9		1.7		1.5	
.CLASS	1.0		1.0		1.9		1.7		1.6	
..ORDER	1.4		1.5		2.4		2.4		2.3	
...FAMILY	1.5		2.2		2.6		2.9		2.8	
....GENUS	1.6		2.6		2.8		3.0		2.9	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	6	4	--	-
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	--	-	--	-	--	-	--	-
...MICRACTINIACEAE										
....MICRACTINIUM	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	22	5	--	-	3	2	--	-
....CHODATELLA	--	-	3	1	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	--	-
....DIMORPHOCOCCUS	--	-	--	-	--	-	--	-	530#	23
....FRANCEIA	--	-	3	1	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	22	7	--	-	--	-
....NEPHROCYTIUM	--	-	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	--	-	--	-
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	85	2	88#	22	22	7	18	11	100	4
....TETRASTRUM	--	-	12	3	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	25	8	12	8	30	1
..ZYGNEMATALES										
...DESMIDIACEAE										
....STAURASTRUM	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	53	2	15	4	14	4	6	4	--	-
....MELOSIRA	750#	21	190#	47	36	12	25#	15	370#	16
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	--	-	*	0
....RHOICOSPHENIA	--	-	12	3	--	-	--	-	--	-
...CYMBELLACEAE										
....EPITHEMIA	37	1	--	-	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	--	-	--	-	3	1	--	-	--	-
...EUNOTIACEAE										
....EUNOTIA	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	3	1	--	-	6	4	--	-
....FRAGILARIA	--	-	3	1	--	-	--	-	*	0
....SYNEDRA	27	1	--	-	3	1	--	-	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	9	2	--	-	3	2	40	2
...NAVICULACEAE										
....FRUSTULIA	--	-	--	-	--	-	--	-	--	-
....GYROSIGMA	27	1	--	-	--	-	--	-	--	-
....NAVICULA	53	2	6	2	14	4	34#	21	110	5
....PINNULARIA	--	-	12	3	--	-	--	-	*	0
....STAURONEIS	--	-	--	-	--	-	--	-	30	1
...NITZSCHIACEAE										
....NITZSCHIA	--	-	18	5	6	2	--	-	630#	27
...SURIRELLACEAE										
....SURIRELLA	64	2	3	1	--	-	--	-	--	-
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...OCHROMONADACEAE										
....DINOBRYON	--	-	--	-	--	-	--	-	*	0

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

14207500 TUALATIN RIVER AT WEST LINN, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO JULY 1977

DATE	OCT 29,76		NOV 23,76		DEC 16,76		JAN 17,77		FEB 16,77	
TIME	1000		1000		1100		1130		1100	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROCCOCCALES										
...CHROCCOCCAEAE										
....ANACYSTIS	91	3	--	-	--	-	9	6	130	6
..HORMOGONALES										
...OSCILLATORIACEAE										
....OSCILLATORIA	2300#	66	--	-	130#	40	--	-	320	14
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	--	-	39	13	--	-	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	3	1	3	1	40#	25	20	1
....LEPOCINCLIS	--	-	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..GYMNODINIALES										
...GYMNODINIACEAE										
....GYMNODINIUM	--	-	--	-	--	-	--	-	--	-

DATE	MAY 2,77	JUN 1,77	JUN 27,77	JUL 18,77
TIME	1100	1130	1245	1200
TOTAL CELLS/ML	6800	190000	100000	46000
DIVERSITY: DIVISION	1.1	0.5	1.6	1.0
.CLASS	1.2	0.5	1.6	1.0
..ORDER	1.8	0.5	1.8	1.7
...FAMILY	2.5	0.5	2.0	2.0
....GENUS	3.2	0.6	2.3	2.6

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	--	-
...COELASTRACEAE								
....COELASTRUM	--	-	*	0	--	-	2200	5
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	*	0	--	-	--	-
...MICRACTINIACEAE								
....MICRACTINIUM	150	2	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	1200#	18	*	0	810	1	--	-
....CHODATELLA	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	1600	2	--	-
....DIMORPHOCOCCUS	--	-	--	-	--	-	--	-
....FRANCEIA	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	110	2	--	-	670	1	560	1
....NEPHROCYTIUM	310	5	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	540	1	--	-
....SELENASTRUM	340	5	*	0	*	0	560	1
....TETRAEDRON	--	-	--	-	*	0	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	*	0	1100	1	--	-
....CRUCIGENIA	--	-	1300	1	2100	2	2800	6
....SCENEDESMUS	840	12	--	-	4800	5	2800	6
....TETRASTRUM	--	-	*	0	1100	1	560	1
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	110	2	--	-	5400	5	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....STAURASTRUM	--	-	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

14207500 TUALATIN RIVER AT WEST LINN, OR—Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO JULY 1977

DATE TIME	MAY 2,77 1100		JUN 1,77 1130		JUN 27,77 1245		JUL 18,77 1200	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	500	7	6100	3	940	1	87000#	19
....MELOSIRA	2000#	29	3200	2	260000#	26	100000#	22
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	38	1	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	--	-
....RHOICOSPHENIA	76	1	--	-	--	-	--	-
...CYMBELLACEAE								
....EPITHEMIA	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	*	0	--	-	--	-
...EUNOTIACEAE								
....EUNOTIA	--	-	*	0	--	-	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	150	2	*	0	1500	1	160000#	35
....FRAGILARIA	--	-	--	-	--	-	--	-
....SYNEDRA	76	1	--	-	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	38	1	*	0	--	-	--	-
...NAVICULACEAE								
....FRUSTULIA	--	-	*	0	--	-	--	-
....GYROSIGMA	--	-	--	-	--	-	--	-
....NAVICULA	--	-	--	-	--	-	--	-
....PINNULARIA	--	-	--	-	--	-	--	-
....STAURONEIS	--	-	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	610	9	*	0	*	0	--	-
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	--	-	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...OCHROMONADACEAE								
....DINOBRYON	76	1	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROCCOCCALES								
...CHROCCOCCAEAE								
....ANACYSTIS	--	-	1700000#	92	510000#	51	1700	4
..HORMOGONALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.CRYPTOPHYCEAE								
..CRYPTOMONIDALES								
...CRYPTOMONODACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	--	-
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	38	1	--	-	--	-	--	-
....LEPOCINCLIS	--	-	*	0	--	-	--	-
....TRACHELOMONAS	110	2	*	0	--	-	*	0
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..GYMNODINIALES								
...GYMNODINIACEAE								
....GYMNODINIUM	--	-	--	-	1500	1	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	CHLOR-A PERI-PHYTON CHROMO-SPECT-METRIC (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-SPECT-METRIC (MG/M2)
NOV			
23...	5965	.258	.036

14207500 TUALATIN RIVER AT WEST LINN, OR--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				---	190	147	111	---	170	196	193	
2				---	191	140	109	173	176	195	190	
3				---	199	117	111	162	173	196	195	
4				---	202	96	113	161	169	197	---	
5				---	204	106	115	163	156	196	---	
6				---	207	112	119	157	160	197	---	
7				---	206	109	119	160	148	196	---	
8				---	207	114	120	162	140	203	---	
9				---	209	114	122	164	137	211	---	
10				---	210	104	132	165	138	218	---	
11				---	215	85	131	175	148	218	---	
12				---	215	86	131	165	152	218	---	
13				---	221	91	134	154	151	217	---	
14				---	232	98	137	152	151	216	---	
15				---	237	102	138	154	155	216	---	
16				---	235	103	140	159	160	219	---	
17				---	230	105	138	157	160	219	---	
18				---	---	106	137	169	161	219	---	
19				---	---	108	138	171	158	219	---	
20				---	---	112	139	164	161	223	---	
21				---	---	113	---	169	170	227	---	
22				---	---	116	---	168	182	228	---	
23				---	---	116	---	169	191	224	---	
24				---	214	116	---	174	192	213	---	
25				---	196	115	---	180	192	202	---	
26				221	180	116	---	185	193	198	---	
27				212	186	118	---	186	196	195	---	
28				202	191	124	---	184	195	196	---	
29				199	---	122	---	180	197	198	---	
30				197	---	119	---	173	198	195	---	
31				192	---	120	---	167	---	192	---	

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.0	15.5	11.0	10.5	6.0	5.5	5.0	4.5	4.0	4.0	7.5	7.0
2	16.0	15.5	11.5	11.0	5.5	5.0	4.5	4.0	4.0	4.0	7.0	7.0
3	15.5	15.0	11.5	11.0	5.0	5.0	4.0	4.0	4.0	4.0	7.5	7.0
4	15.0	14.5	11.5	11.0	5.0	5.0	4.0	4.0	4.5	4.0	7.0	7.0
5	14.5	14.0	11.5	11.0	5.0	5.0	4.0	3.5	4.5	4.5	7.5	7.0
6	14.5	14.0	11.0	11.0	5.5	5.0	3.5	3.0	4.5	4.5	7.0	7.0
7	14.5	14.0	11.0	11.0	5.5	5.0	3.0	3.0	4.5	4.5	7.0	7.0
8	14.5	14.0	11.0	11.0	5.5	5.5	3.0	2.5	4.5	4.5	7.5	7.0
9	14.0	14.0	11.0	10.5	5.5	5.5	2.5	2.5	4.5	4.5	7.0	7.0
10	14.0	14.0	10.5	10.5	5.5	5.5	2.5	2.5	5.0	4.5	7.0	6.5
11	14.5	14.0	11.0	10.5	5.5	5.5	2.5	2.5	5.0	5.0	6.5	6.5
12	14.5	14.0	11.0	10.5	5.5	5.0	3.0	2.5	5.5	5.0	6.5	6.5
13	14.0	13.5	10.5	10.0	5.0	5.0	3.0	3.0	5.5	5.5	7.0	6.5
14	14.0	13.5	10.5	10.0	5.0	5.0	3.0	3.0	6.0	5.5	7.0	6.5
15	13.5	13.5	10.5	10.5	5.0	4.5	3.5	3.0	6.0	6.0	7.0	6.5
16	13.5	13.0	11.0	10.5	4.5	4.5	3.5	3.5	6.5	6.0	7.0	6.5
17	13.5	12.5	11.0	10.5	5.0	4.5	3.5	3.5	7.0	6.5	7.0	6.5
18	12.5	12.5	10.5	10.5	5.0	5.0	4.0	3.5	7.0	6.5	7.0	6.5
19	12.5	12.0	10.5	10.0	5.0	5.0	4.0	3.5	7.5	6.5	7.5	7.0
20	12.5	11.5	10.0	10.0	5.0	5.0	4.0	3.5	7.0	7.0	7.5	7.5
21	12.0	11.5	10.0	9.5	5.0	5.0	4.0	4.0	7.0	7.0	8.0	7.5
22	11.5	11.0	9.5	9.0	5.0	5.0	4.0	3.5	7.0	7.0	9.0	8.0
23	11.0	11.0	9.0	8.5	5.5	5.0	4.0	3.5	7.5	7.0	9.0	8.5
24	11.0	11.0	8.5	8.5	5.5	5.5	4.0	4.0	7.5	7.5	9.0	8.5
25	11.0	11.0	8.5	8.5	5.5	5.5	4.0	4.0	7.5	7.0	9.0	8.5
26	11.0	10.5	8.5	7.5	5.5	5.5	4.5	4.0	7.5	7.0	9.0	8.5
27	10.5	10.5	7.5	7.0	6.0	5.5	4.0	3.5	7.5	7.0	9.0	8.5
28	10.5	10.5	7.0	6.5	6.0	6.0	3.5	3.5	8.0	7.5	9.0	8.5
29	10.5	10.0	6.5	6.5	6.0	6.0	3.5	3.5	---	---	9.0	8.5
30	10.0	10.0	6.5	6.0	6.0	5.5	3.5	3.5	---	---	9.5	8.5
31	10.5	10.0	---	---	5.5	5.0	4.0	3.5	---	---	9.0	8.5
MONTH	16.0	10.0	11.5	6.0	6.0	4.5	5.0	2.5	8.0	4.0	9.5	6.5

14207500 TUALATIN RIVER AT WEST LINN, OR--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.5	8.5	16.0	15.0	16.0	15.0	26.0	22.0	25.5	23.0	19.0	18.5
2	8.5	8.0	15.5	15.0	16.0	15.0	23.5	21.5	26.5	23.5	19.0	18.0
3	9.5	8.5	15.5	15.0	16.0	15.5	22.0	21.0	26.5	23.5	18.5	18.0
4	10.5	8.5	15.5	15.0	15.5	15.0	21.5	20.5	26.0	24.0	18.5	18.0
5	11.0	9.0	15.0	14.5	16.5	15.0	21.5	20.0	26.0	23.5	19.0	18.0
6	12.0	10.0	15.0	14.0	17.5	15.5	23.0	20.0	27.5	24.5	18.5	18.0
7	12.5	10.5	14.5	14.0	18.0	16.5	23.0	20.0	27.0	24.0	18.5	17.5
8	12.5	11.5	15.0	14.5	17.5	17.0	23.0	21.0	27.5	24.0	18.5	17.5
9	12.0	11.5	15.0	14.5	18.0	16.5	22.0	20.5	27.5	23.5	18.5	17.5
10	12.0	11.5	15.5	14.5	18.0	17.0	22.5	20.5	27.0	23.5	18.5	17.5
11	12.5	11.5	16.0	15.0	18.0	17.5	23.0	20.5	27.5	24.0	18.5	17.5
12	13.0	12.0	15.0	14.5	18.5	17.5	22.0	20.5	26.0	24.5	18.5	17.5
13	13.0	12.5	15.5	14.5	18.5	18.0	21.0	20.0	26.0	23.5	19.0	18.0
14	13.0	12.5	15.5	14.5	19.5	18.0	22.5	19.5	26.0	24.0	19.0	17.5
15	13.0	12.5	15.0	14.5	20.0	18.5	23.5	20.5	26.5	24.0	17.5	17.5
16	13.0	12.5	15.0	14.5	20.5	19.5	23.0	21.0	26.0	24.0	17.5	17.5
17	13.0	12.0	15.0	14.5	21.5	20.0	22.0	20.5	27.5	24.5	17.5	17.0
18	13.0	12.0	14.5	14.5	21.0	20.0	21.5	20.0	25.5	24.5	17.0	17.0
19	12.0	11.5	15.0	14.0	21.5	20.5	22.5	20.0	24.5	23.5	17.0	17.0
20	12.5	11.0	15.5	14.5	21.0	20.0	22.5	21.0	23.5	22.5	17.0	16.5
21	12.5	11.5	16.0	15.0	21.0	20.0	23.0	21.0	22.5	22.0	17.0	16.5
22	12.5	12.0	15.5	15.0	21.5	20.5	24.5	21.5	23.5	21.5	17.0	16.0
23	13.0	12.0	15.5	15.0	22.0	20.5	24.5	21.5	22.0	21.0	16.5	16.0
24	13.5	12.5	16.0	15.0	23.0	20.5	24.5	22.0	21.5	20.5	16.0	15.5
25	14.0	12.5	16.0	15.5	24.0	21.5	24.0	21.5	21.0	20.0	16.0	15.5
26	14.0	13.5	15.5	15.0	24.0	21.5	23.0	21.5	19.5	19.0	15.5	15.0
27	14.5	13.0	15.5	15.0	23.5	21.5	24.0	22.0	19.0	18.5	15.5	15.0
28	15.0	13.5	15.5	15.0	25.5	21.5	23.5	22.0	19.5	18.5	15.5	15.0
29	15.0	14.0	16.0	15.0	25.0	21.5	23.5	21.0	19.5	19.0	15.5	14.5
30	15.0	14.0	16.0	15.0	26.5	21.0	24.5	21.5	19.5	19.0	15.0	14.5
31	---	---	17.0	15.0	---	---	25.0	22.0	19.5	18.5	---	---
MONTH	15.0	8.0	17.0	14.0	26.5	15.0	26.0	19.5	27.5	18.5	19.0	14.5

14207740 WILLAMETTE RIVER ABOVE FALLS, AT OREGON CITY, OR

LOCATION.--Lat 45°20'55", long 122°37'08", in SW¼SW¼ sec.31, T.2 S., R.2 E., Clackamas County, Hydrologic Unit 17090007, on right bank 0.2 mi (0.3 km) above Willamette Falls, 0.6 mi (1.0 km) downstream from Tualatin River, and at mile 26.8 (43.1 km).

DRAINAGE AREA.--10,000 mi^2 (25,900 km^2), approximately.

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 58.02 ft (17.684 m) Mar. 10; minimum, 52.65 ft (16.048 m) Feb. 8.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	55.64	55.15	55.78	53.66	56.75	55.67	---	55.80	54.70	54.24	54.96
2	---	55.92	55.04	55.76	53.46	57.13	55.71	---	55.60	54.76	54.60	54.65
3	---	56.10	54.89	55.57	53.32	56.79	55.72	---	55.53	54.81	54.49	54.56
4	---	56.03	54.86	55.34	53.29	56.57	55.58	---	55.52	54.96	54.43	54.35
5	---	55.83	54.86	55.80	53.18	56.29	55.49	---	55.81	54.89	54.15	54.68
6	---	55.70	54.86	55.78	53.03	56.03	55.53	---	55.94	54.88	54.14	55.06
7	---	55.65	54.79	55.76	52.82	55.99	55.69	---	55.75	54.77	54.29	54.80
8	---	55.60	54.82	55.72	52.70	56.81	55.83	---	55.53	54.35	54.79	54.52
9	---	55.53	54.89	55.69	52.76	57.59	55.91	---	55.37	54.07	55.15	54.42
10	---	55.49	54.99	55.39	52.84	57.93	55.87	---	55.17	54.11	55.20	54.70
11	---	55.45	55.00	54.91	52.94	57.72	55.68	---	54.99	54.32	55.17	54.65
12	---	55.48	54.89	54.85	53.48	57.22	55.49	---	54.88	54.30	55.08	54.43
13	---	55.43	54.77	54.90	53.89	57.13	55.35	---	54.78	54.23	55.05	54.56
14	---	55.44	54.82	55.11	53.85	56.95	---	---	54.63	54.17	55.00	54.74
15	---	55.50	55.05	55.34	54.00	56.55	---	---	54.40	53.78	55.02	54.72
16	---	55.64	54.86	55.38	54.19	56.17	---	---	54.27	53.47	55.08	54.63
17	---	55.82	54.70	55.31	54.37	55.83	---	---	54.20	53.24	55.13	54.74
18	---	55.86	54.66	55.26	54.00	55.57	---	---	54.05	53.71	54.74	54.74
19	---	55.95	54.57	55.09	53.90	55.40	---	56.57	53.98	54.50	54.54	54.69
20	---	55.95	54.47	55.00	53.77	55.36	---	56.32	53.96	54.54	54.68	54.93
21	---	55.85	54.35	54.97	53.73	55.34	---	56.34	53.93	54.26	54.72	55.17
22	---	55.78	54.23	54.94	54.00	55.20	---	56.30	53.87	54.16	54.62	55.11
23	---	55.74	54.35	54.90	54.75	55.19	---	55.85	53.77	54.56	54.68	55.07
24	---	55.77	54.73	54.79	55.19	55.42	---	55.86	53.92	54.88	54.93	55.19
25	---	55.69	54.88	54.72	55.22	55.52	---	55.73	54.66	54.84	54.92	55.57
26	---	55.47	54.96	54.71	55.25	55.44	---	55.78	54.84	54.60	54.84	55.63
27	---	55.27	55.23	54.42	55.39	55.32	---	55.65	54.85	54.41	54.71	55.53
28	---	55.16	55.61	53.84	55.79	55.62	---	55.90	54.85	54.27	54.47	55.54
29	55.49	55.13	55.42	53.85	---	55.90	---	56.21	54.81	54.09	54.33	55.66
30	55.40	55.15	55.42	53.84	---	55.83	---	55.91	54.76	54.11	54.57	55.79
31	55.51	---	55.80	53.78	---	55.71	---	55.95	---	54.06	54.92	---
MEAN	---	55.63	54.90	55.05	53.88	56.20	---	---	54.81	54.35	54.73	54.93

14207770 WILLAMETTE RIVER BELOW FALLS, AT OREGON CITY, OR

LOCATION.--Lat 45°21'28", long 122°36'35", in NE¼NW¼ sec.31, T.2 S., R.2 E., Clackamas County, Hydrologic Unit 17090007, on right bank 0.5 mi (0.8 km) below Willamette Falls, 1.4 mi (2.2 km) upstream from Clackamas River, and at mile 26.2 (42.2 km).

DRAINAGE AREA.--10,000 mi^2 (25,900 km^2), approximately.

PERIOD OF RECORD.--November 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (Oregon State Highway Division bench mark).

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 12.85 ft (3.917 m) Mar. 10; minimum, 1.86 ft (0.567 m) July 10.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1				---	---	---	7.04	5.39	6.11	6.78	4.12	5.37
2				---	---	---	7.25	4.82	5.82	6.90	3.87	5.01
3				---	---	---	7.40	4.84	5.75	7.71	4.03	5.92
4				---	---	---	6.76	3.89	5.12	7.51	5.29	6.16
5				---	---	---	6.46	3.27	4.50	7.53	5.02	6.15
6				---	---	---	6.85	3.35	4.79	7.57	5.37	6.28
7				---	---	---	7.23	3.87	5.24	7.58	4.61	6.00
8				---	---	---	7.73	4.02	5.61	7.38	5.32	6.26
9				---	---	---	7.24	4.48	5.58	6.59	4.17	5.26
10				---	---	---	6.72	4.07	5.17	6.63	3.55	4.95
11				---	---	---	6.57	3.87	5.08	6.79	3.74	5.08
12				---	---	---	6.08	3.76	4.92	7.50	4.13	5.67
13				---	---	---	6.43	3.67	4.91	7.51	4.81	5.77
14				---	---	---	7.00	4.54	5.38	7.54	4.52	5.67
15				---	---	---	7.13	4.12	5.32	7.53	4.57	5.75
16				---	---	---	7.45	4.25	5.51	7.73	4.61	5.81
17				---	---	---	7.93	4.36	5.88	8.10	4.73	6.01
18				---	---	---	7.90	4.87	6.08	8.24	4.91	6.15
19				---	---	---	7.84	4.37	5.69	8.19	4.93	6.14
20				8.39	5.82	6.75	7.51	3.82	5.42	8.37	4.91	6.33
21				8.66	5.71	6.80	7.73	4.79	6.09	8.09	5.43	6.52
22				8.92	5.80	6.98	7.91	4.62	6.08	7.48	5.17	6.18
23				8.75	5.81	6.90	8.02	5.48	6.66	6.90	4.42	5.47
24				8.57	5.75	6.82	7.20	4.67	5.79	6.82	4.42	5.56
25				8.08	5.73	6.65	6.88	3.97	5.31	7.23	5.23	6.39
26				7.10	5.07	5.93	7.07	3.96	5.59	7.27	5.56	6.41
27				6.42	4.26	5.33	7.27	4.60	5.70	6.62	4.97	5.59
28				6.37	4.48	5.24	7.06	4.16	5.51	6.60	4.67	5.45
29				6.30	3.72	4.96	7.08	4.45	5.49	6.15	4.31	5.08
30				6.89	4.88	5.85	7.13	4.71	5.56	6.41	4.13	4.97
31				---	---	---	7.18	4.72	5.66	7.40	4.07	5.59
MONTH				8.92	3.72	6.20	8.02	3.27	5.52	8.37	3.55	5.77

14207770 WILLAMETTE RIVER BELOW FALLS, AT OREGON CITY, OR--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.38	5.14	6.11	9.21	6.57	8.35	7.66	6.01	6.79	7.15	4.22	5.47
2	7.55	4.74	5.96	10.03	8.80	9.36	7.74	6.08	6.73	7.56	4.43	6.10
3	7.51	4.88	5.92	---	---	---	7.91	5.85	6.63	8.86	5.55	7.53
4	7.57	5.01	5.98	9.25	7.90	8.51	7.77	5.44	6.43	9.87	7.34	8.54
5	7.12	4.11	5.31	8.80	7.14	7.85	7.83	5.36	6.42	10.34	8.22	9.06
6	6.78	3.76	5.04	8.81	6.67	7.53	8.01	5.58	6.59	10.25	8.38	9.04
7	6.73	3.20	4.72	9.70	6.61	7.91	8.36	6.03	7.02	9.78	7.69	8.54
8	7.57	4.27	5.65	11.17	8.42	9.95	8.54	6.44	7.22	9.04	7.23	8.00
9	7.08	3.92	5.14	12.55	10.78	11.85	8.27	6.36	7.08	8.36	6.75	7.55
10	7.31	3.60	5.28	12.85	11.91	12.40	7.54	5.68	6.52	8.12	6.45	7.17
11	6.58	3.63	4.79	12.43	11.22	11.91	7.05	5.30	6.14	7.87	6.79	7.25
12	6.31	3.07	4.37	11.40	10.21	10.81	6.62	4.73	5.67	8.33	6.88	7.39
13	5.95	2.72	4.01	10.95	10.08	10.44	6.84	4.92	5.78	8.54	6.59	7.49
14	6.32	2.89	4.31	10.37	9.11	9.90	6.85	4.97	5.88	8.31	6.13	6.91
15	6.82	3.32	4.82	9.69	8.26	9.13	7.33	5.18	6.09	8.06	5.90	6.69
16	7.31	3.66	5.20	9.19	7.90	8.45	7.57	5.16	6.03	8.06	5.92	6.83
17	6.86	3.56	4.91	8.97	7.17	8.07	6.91	4.48	5.46	8.17	6.17	7.00
18	6.97	3.30	4.93	8.32	6.59	7.35	6.56	4.03	5.16	8.90	7.03	8.22
19	7.07	3.66	5.13	8.27	6.38	7.20	6.64	4.14	5.13	9.27	7.98	8.45
20	6.76	3.50	5.04	8.00	5.94	6.81	6.72	4.16	5.19	8.93	7.21	7.94
21	7.50	3.52	5.33	7.89	5.89	6.70	6.94	4.25	5.29	8.70	7.02	7.63
22	7.78	4.14	5.65	7.88	5.79	6.64	7.01	4.49	5.47	8.30	6.66	7.38
23	7.23	4.53	5.53	8.01	5.70	6.59	6.58	3.79	5.07	8.05	6.34	7.08
24	6.77	4.37	5.27	7.94	5.85	6.61	6.02	3.60	4.64	7.32	5.95	6.63
25	6.33	4.22	4.97	7.43	5.65	6.32	5.99	4.12	4.83	7.38	6.02	6.64
26	6.12	4.18	4.93	6.90	5.04	5.83	5.84	4.58	5.13	7.97	6.77	7.37
27	6.01	4.24	4.89	6.98	5.23	5.89	6.04	4.71	5.37	8.17	7.08	7.55
28	7.02	4.90	5.99	6.66	5.53	6.12	6.42	4.44	5.33	8.70	6.75	7.54
29	---	---	---	7.01	6.19	6.63	6.58	3.91	5.14	8.69	6.71	7.43
30	---	---	---	7.18	6.03	6.69	6.64	3.97	5.23	8.72	6.15	7.16
31	---	---	---	7.34	5.77	6.47	---	---	---	8.48	6.04	7.10
MONTH	7.78	2.72	5.18	12.85	5.04	8.14	8.54	3.60	5.84	10.34	4.22	7.44

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.43	6.56	8.03	7.12	3.47	5.04	6.36	2.89	4.45	6.46	3.57	4.88
2	9.40	7.32	8.20	6.66	2.97	4.66	6.96	3.62	4.99	5.97	2.98	4.44
3	9.54	7.24	8.10	6.49	2.84	4.54	6.56	3.13	4.89	6.20	3.27	4.42
4	9.46	6.99	8.02	6.42	2.76	4.35	6.75	3.29	4.69	5.91	3.58	4.54
5	8.88	6.99	7.71	5.87	2.44	4.04	6.68	3.48	4.74	5.42	2.70	3.79
6	8.81	7.05	7.77	5.21	2.26	3.71	6.29	2.62	4.05	5.61	3.14	3.98
7	8.62	6.79	7.55	5.20	2.22	3.53	5.52	2.41	3.46	5.72	3.44	4.31
8	8.24	6.31	7.06	5.50	2.49	3.62	5.51	2.06	3.43	5.66	3.35	4.22
9	8.05	5.91	6.79	5.74	2.14	3.54	5.52	2.26	3.59	5.68	2.91	4.09
10	7.72	5.51	6.29	5.04	1.86	3.06	5.71	2.35	3.78	5.94	3.11	4.34
11	7.53	4.75	5.76	5.16	2.24	3.52	5.76	2.68	4.04	5.92	3.04	4.36
12	7.12	4.51	5.45	5.58	2.64	3.85	6.08	2.72	4.35	5.98	3.08	4.44
13	7.06	4.41	5.51	5.89	2.79	4.13	6.45	2.75	4.46	6.74	3.26	4.89
14	7.45	4.86	5.82	5.99	2.52	4.05	5.98	2.53	4.22	7.28	3.99	5.44
15	7.31	4.62	5.62	6.21	3.00	4.34	6.28	2.88	4.46	7.43	4.14	5.54
16	7.47	4.86	5.86	6.27	2.63	4.21	6.82	3.53	4.98	7.49	4.19	5.59
17	7.55	4.63	5.99	5.85	2.27	3.92	7.17	3.97	5.32	7.17	4.10	5.47
18	7.34	4.24	5.64	6.07	2.55	4.13	6.75	3.54	5.19	6.77	3.72	5.11
19	6.66	3.44	4.89	6.72	3.30	4.79	6.86	3.38	4.76	7.27	3.84	5.21
20	6.27	3.28	4.62	6.41	3.32	4.76	6.23	3.03	4.63	7.10	4.24	5.37
21	6.01	3.07	4.40	6.28	3.03	4.51	5.89	2.62	4.05	6.96	4.10	5.13
22	6.02	3.18	4.44	5.77	2.43	4.02	6.30	2.78	3.98	6.81	4.06	5.12
23	6.17	3.21	4.40	5.74	2.12	3.64	6.44	3.27	4.47	6.86	4.15	5.51
24	6.12	2.89	4.11	5.51	2.37	3.61	6.90	3.56	4.81	7.49	4.92	6.06
25	6.10	2.94	4.12	5.96	2.68	3.88	6.72	3.66	4.99	7.75	5.13	6.32
26	6.29	2.65	4.04	6.13	2.82	4.07	6.89	3.76	5.19	7.94	5.46	6.55
27	6.19	2.97	4.18	6.15	2.68	4.19	6.62	3.40	4.91	7.88	5.38	6.47
28	6.64	3.08	4.57	6.33	2.82	4.39	6.54	3.38	4.90	8.20	5.35	6.48
29	6.72	3.06	4.74	6.49	2.98	4.57	6.53	3.39	4.87	8.23	5.66	6.63
30	7.20	3.51	5.24	6.65	2.84	4.56	7.02	3.74	5.25	8.20	5.93	6.79
31	---	---	---	6.65	2.82	4.52	6.76	3.68	5.03	---	---	---
MONTH	9.54	2.65	5.83	7.12	1.86	4.12	7.17	2.06	4.54	8.23	2.70	5.18
YEAR	12.85	1.86	5.77									

14208600 TIMOTHY LAKE NEAR GOVERNMENT CAMP, OR

LOCATION.--Lat 45°06'50", long 121°48'35", in NE¼ sec.27, T.5 S., R.8 E., Clackamas County, Hydrologic Unit 17090011, Mount Hood National Forest, in intake structure 350 ft (107 m) upstream from dam on Oak Grove Fork, 0.4 mi (0.6 km) upstream from Anvil Creek, 14 mi (22.5 km) south of Government Camp, and at mile 15.8 (25.4 km).

DRAINAGE AREA.--53.8 mi^2 (139.3 km^2).

PERIOD OF RECORD.--May 1956 to current year. Prior to October 1957, published as Timothy Meadows Reservoir.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Portland General Electric Co.).

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway built by Portland General Electric Co. Usable storage began May 28, 1956. Capacity, 65,710 acre-ft (81.0 hm^3) at elevation 3,190 ft (972.3 m), normal maximum operating level. Usable capacity increased in 1966 water year to 64,450 acre-ft (79.5 hm^3) between elevations 3,125.0 ft (952.50 m), invert of outlet pipe, and 3,192.0 ft (972.92 m), top of radial gates. Storage of 4,060 acre-ft (5.0 hm^3) below elevation 3,125.0 ft (952.50 m) not normally available for release. Water is used for power generation. Figures given herein represent total contents.

COOPERATION.--Elevations and capacity table furnished by Portland General Electric Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 68,800 acre-ft (84.8 hm^3) Oct. 3, 1967, elevation, 3,192.2 ft (972.98 m); minimum observed, 16,010 acre-ft (19.7 hm^3) Feb. 24, 1957, elevation, 3,144.5 ft (958.44 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 65,020 acre-ft (80.2 hm^3) Oct. 1, elevation, 3,189.5 ft (972.16 m); minimum observed, 41,520 acre-ft (51.2 hm^3) Dec. 7, elevation, 3,170.7 ft (966.43 m).

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	3,189.6	65,160	-
Oct. 31	3,182.4	55,690	-9,470
Nov. 30	3,171.6	42,570	-13,120
Dec. 31	3,171.7	42,680	+110
CAL YR 1976	-	-	-22,340
Jan. 31	3,174.3	45,740	+3,060
Feb. 28	3,176.4	48,250	+2,510
Mar. 31	3,177.2	49,220	+970
Apr. 30	3,180.7	53,540	+4,320
May 31	3,183.8	57,470	+3,930
June 30	3,184.9	58,900	+1,430
July 31	3,185.3	59,420	+520
Aug. 31	3,185.6	59,820	+400
Sept.30	3,185.4	56,960	-2,860
WTR YR 1977	-	-	-8,200

14208700 OAK GROVE FORK NEAR GOVERNMENT CAMP, OR

LOCATION.--Lat 45°06'50", long 121°48'50", in NE¼ sec.27, T.5 S., R.8 E., Clackamas County, Hydrologic Unit 17090011, Mount Hood National Forest, on right bank 0.1 mi (0.2 km) upstream from Anvil Creek, 0.3 mi (0.5 km) downstream from Timothy Lake, 14 mi (23 km) south of Government Camp, and at mile 15.5 (24.9 km).

DRAINAGE AREA.--54.4 mi^2 (140.9 km^2).

PERIOD OF RECORD.--July 1956 to current year.

GAGE.--Water-stage recorder and artificial control. Datum of gage is 3,041.83 ft (927.150 m) above mean sea level (Portland General Electric Co. bench mark).

REMARKS.--Records fair. Flow regulated since 1956 by Timothy Lake (see station 14208600). No diversion above station.

AVERAGE DISCHARGE.--21 years, 132 ft^3/s (3.738 m^3/s), 32.95 in/yr (837 mm/yr), 95,630 acre-ft/yr (118 hm^3/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,110 ft^3/s (59.8 m^3/s) Dec. 24, 1964, gage height, 3.93 ft (1.198 m), from rating curve extended above 290 ft^3/s (8.21 m^3/s) on basis of slope-area measurement of peak flow; minimum, 3.7 ft^3/s (0.10 m^3/s) Sept. 23, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 390 ft^3/s (11.0 m^3/s) Mar. 3, 5; maximum gage height, 2.65 ft (0.808 m) Mar. 7; minimum discharge, 23 ft^3/s (0.65 m^3/s) June 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	240	150	45	43	43	39	37	33	33	33	34
2	64	250	160	45	43	194	39	37	34	33	33	34
3	70	280	128	45	43	366	39	37	34	33	33	36
4	64	270	112	45	43	375	39	37	32	33	33	34
5	70	260	114	45	43	390	39	37	32	32	33	34
6	76	260	114	45	43	190	39	37	33	34	33	34
7	74	260	128	45	43	184	40	37	33	34	33	34
8	78	260	130	45	43	45	40	37	33	33	33	36
9	74	260	139	45	43	45	40	36	33	33	33	36
10	74	250	105	45	43	43	40	36	33	33	33	36
11	72	250	100	45	43	43	40	36	29	33	33	34
12	76	260	105	45	43	42	40	34	29	33	33	34
13	72	260	109	45	43	42	40	34	32	33	33	34
14	72	250	117	45	43	42	40	34	33	34	33	34
15	239	240	117	45	43	40	40	34	33	34	33	34
16	250	250	107	45	43	40	39	34	33	34	33	34
17	250	250	105	45	43	39	39	34	33	34	33	34
18	270	240	105	45	43	39	39	34	33	34	33	34
19	270	230	102	45	43	39	39	34	33	33	34	34
20	260	230	102	45	43	39	39	34	33	33	34	105
21	260	220	102	45	43	39	39	34	33	33	34	194
22	270	220	95	45	43	39	39	34	33	34	34	187
23	260	210	76	45	43	39	39	34	33	33	34	239
24	250	200	45	45	43	39	39	34	33	33	34	204
25	250	200	45	45	43	39	39	33	33	33	34	239
26	250	190	45	43	43	39	37	34	33	33	34	247
27	260	190	45	43	43	39	37	34	33	33	34	224
28	260	190	45	43	43	39	37	34	33	33	34	217
29	260	180	45	43	---	39	37	34	33	33	34	207
30	250	160	45	43	---	39	37	34	33	34	34	184
31	240	---	45	43	---	39	---	33	---	34	34	---
TOTAL	5351	7010	2982	1383	1204	2709	1169	1082	981	1032	1036	2901
MEAN	173	234	96.2	44.6	43.0	87.4	39.0	34.9	32.7	33.3	33.4	96.7
MAX	270	280	160	45	43	390	40	37	34	34	34	247
MIN	64	160	45	43	43	39	37	33	29	32	33	34
AC-FT	10610	13900	5910	2740	2390	5370	2320	2150	1950	2050	2050	5750
MEAN†	18.5	13.1	97.9	94.3	88.2	103.1	111.6	98.9	56.8	41.8	39.8	48.6
CFSM†	.34	.24	1.80	1.73	1.62	1.90	2.05	1.82	1.04	.77	.73	.89
IN†	.39	.27	2.08	2.00	1.69	2.19	2.29	2.10	1.17	.89	.84	1.00
AC-FT†	1,140	780	6,020	5,800	4,900	6,340	6,640	6,080	3,380	2,570	2,450	2,890

CAL YR 1976 TOTAL 65,305 MEAN 178 MAX 368 MIN 45 AC-FT 129,500 MEAN† 148.0 CFSM† 2.72 IN† 36.94 AC-FT† 107,160
WTR YR 1977 TOTAL 28,840 MEAN 79.0 MAX 390 MIN 29 AC-FT 57,200 MEAN† 67.7 CFSM† 1.24 IN† 16.89 AC-FT† 48,990

† Adjusted for change in contents in Timothy Lake.

14209000 OAK GROVE FORK ABOVE POWERPLANT INTAKE, OR

LOCATION.--Lat 45°04'20", long 121°57'00", on line between secs.3 and 4, T.6 S., R.7 E., Clackamas County, Hydrologic Unit 17090011, Mount Hood National Forest, on right bank 0.2 mi (0.3 km) upstream from Spring Creek, 0.7 mi (1.1 km) upstream from Kink Creek, 1.0 mi (1.6 km) upstream from Portland General Electric Co. diversion dam, 24 mi (39 km) southeast of Estacada, and at mile 6.1 (9.8 km).

DRAINAGE AREA.--126 mi^2 (326 km^2).

PERIOD OF RECORD.--May 1909 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as both Oak Grove Fork of Clackamas River at proposed intake, near Cazadero, and Oak Grove Fork of Clackamas River at intake, near Cazadero, May 1909 to September 1910, as Oak Grove Fork of Clackamas River at intake, near Cazadero, October 1910 to September 1921, and as Oak Grove Fork at Portland General Electric Power Co. intake, October 1921 to September 1929.

REVISED RECORDS.--WSP 1248: 1909, 1910(M), 1916, 1918, 1923, 1932. WSP 1935: 1914, 1921.

GAGE.--Water-stage recorder. Datum of gage is 2,052.31 ft (625.544 m) above mean sea level. May 21, 1909, to Nov. 17, 1911, nonrecording gage and Mar. 26, 1912, to Sept. 30, 1923, water-stage recorder, at various sites 0.7 mi (1.1 km) downstream, below Kink Creek, at different datum.

REMARKS.--Records good. Flow regulated since 1956 by Timothy Lake (see station 14208600). No diversion above station.

AVERAGE DISCHARGE.--68 years, 505 ft^3/s (14.30 m^3/s), 365,900 acre-ft/yr (451 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft^3/s (142 m^3/s) Jan. 7, 1923, gage height, 5.45 ft (1.661 m), site and datum then in use, from rating curve extended above 2,300 ft^3/s (65.1 m^3/s) on basis of peak discharge for other stations in Clackamas River basin; minimum daily, 235 ft^3/s (6.65 m^3/s) many days July to September 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 685 ft^3/s (19.4 m^3/s) Mar. 7, gage height, 2.76 ft (0.841 m); minimum daily, 235 ft^3/s (6.65 m^3/s) many days July to September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	396	578	479	256	248	291	347	406	319	248	248	248
2	391	571	489	256	248	376	328	432	314	252	244	248
3	386	578	437	252	244	559	323	489	314	248	244	248
4	391	571	338	252	244	553	338	458	338	248	240	248
5	391	565	347	252	244	559	357	432	323	244	240	244
6	391	565	342	248	244	463	386	411	319	244	240	244
7	391	565	333	252	244	437	421	391	314	244	240	244
8	401	578	342	248	244	357	463	381	309	244	235	244
9	396	584	362	248	244	328	437	371	305	240	240	240
10	396	559	328	252	244	300	406	376	296	240	240	240
11	391	559	319	252	244	287	396	371	287	240	235	240
12	401	565	323	256	244	287	391	357	282	235	240	240
13	401	571	323	269	248	278	406	352	278	235	240	240
14	396	571	328	260	244	274	391	352	282	240	240	240
15	452	571	328	269	244	269	381	352	278	244	235	240
16	565	553	323	265	244	265	386	352	274	244	235	240
17	559	553	319	260	244	265	367	362	274	235	237	235
18	565	553	319	260	240	265	357	352	269	240	235	240
19	571	559	319	260	240	269	347	342	269	240	240	244
20	571	535	314	260	244	269	347	338	260	240	240	319
21	578	541	314	260	252	265	347	338	260	240	235	484
22	578	547	309	256	256	274	347	338	256	244	240	452
23	578	512	305	252	252	282	357	342	256	248	240	468
24	565	452	256	252	248	278	381	333	252	244	252	447
25	553	473	265	252	252	278	411	323	252	248	260	447
26	571	489	296	252	256	278	411	333	252	244	252	447
27	571	484	287	248	278	328	401	328	252	248	244	432
28	578	489	265	248	309	309	401	323	248	244	244	437
29	578	484	260	248	---	300	411	319	248	244	248	458
30	578	473	256	248	---	291	427	314	252	244	260	447
31	584	---	256	248	---	305	---	314	---	248	248	---
TOTAL	15114	16248	10081	7891	6987	10139	11469	11282	8432	7541	7511	9445
MEAN	488	542	325	255	250	327	382	364	281	243	242	315
MAX	584	584	489	269	309	559	463	489	338	252	260	484
MIN	386	452	256	248	240	265	323	314	248	235	235	235
AC-FT	29980	32230	20000	15650	13860	20110	22750	22380	16720	14960	14900	18730

CAL YR 1976 TOTAL 202712 MEAN 554 MAX 1330 MIN 256 AC-FT 402100
WTR YR 1977 TOTAL 122140 MEAN 335 MAX 584 MIN 235 AC-FT 242300

14209500 CLACKAMAS RIVER ABOVE THREE LYNX CREEK, OR

LOCATION.--Lat 45°07'30", long 122°04'20", in NE¼ sec.21, T.5 S., R.6 E., Clackamas County, Hydrologic Unit 17090011, Mount Hood National Forest, on right bank 0.1 mi (0.2 km) upstream from Three Lynx Creek, 0.25 mi (0.40 km) downstream from powerplant, 17 mi (27 km) southeast of Estacada, and at mile 47.8 (76.9 km).

DRAINAGE AREA.--479 mi² (1,241 km²).

PERIOD OF RECORD.--April 1909 to December 1913, October 1921 to current year. Prior to October 1911 (monthly discharge only), published in WSP 1318.

REVISED RECORDS.--WSP 1148: Drainage area. WSP 1248: 1910(M), 1912, 1948-50(M).

GAGE.--Water-stage recorder. Datum of gage is 1,091.69 ft (332.747 m) above mean sea level (levels by Portland General Electric Co.). Apr. 23, 1909, to Jan. 4, 1914, nonrecording gage at about same site and datum. Nov. 1, 1921, to Dec. 27, 1924, water-stage recorder at present site at datum 0.91 ft (0.277 m) higher.

REMARKS.--Records good. Minor regulation since May 1956 by Timothy Lake (see station 14208600). Considerable diurnal fluctuation during period of low flow.

AVERAGE DISCHARGE.--60 years, 1,993 ft³/s (56.44 m³/s), 56.50 in/yr (1,435 mm/yr), 1,444,000 acre-ft/yr (1.78 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,200 ft³/s (1,930 m³/s) Dec. 22, 1964, gage height, 21.7 ft (6.61 m), from floodmark, from rating curve extended above 34,100 ft³/s (966 m³/s) on basis of slope-area measurement at gage height 15.06 ft (4.590 m); minimum, 324 ft³/s (9.18 m³/s) Oct. 17, 1958; minimum daily, 427 ft³/s (12.1 m³/s) Oct. 5, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,570 ft³/s (101 m³/s) May 3, gage height, 4.01 ft (1.222 m), no peak above base of 8,100 ft³/s (229 m³/s); minimum daily, 573 ft³/s (16.2 m³/s) Aug. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	766	1450	904	760	677	1700	1590	2070	1550	724	608	655
2	772	1290	904	760	660	1570	1590	2300	1410	700	603	623
3	778	1190	797	724	655	1760	1500	3240	1350	718	603	629
4	772	1140	718	718	644	1570	1580	2930	1850	724	603	660
5	766	1110	724	677	639	1490	1880	2540	1870	724	598	677
6	766	1080	730	618	644	1340	2450	2230	1720	712	598	655
7	760	1070	724	655	634	2030	3040	2010	1630	712	598	629
8	760	1060	760	649	634	3160	3360	1850	1470	677	593	613
9	760	1050	853	618	629	2860	2830	1800	1360	689	588	603
10	766	878	766	677	639	2100	2290	2120	1280	649	588	598
11	772	1020	724	689	660	1700	2020	2070	1180	671	588	593
12	766	1020	730	695	666	1630	1940	1790	1140	666	588	603
13	760	1010	724	853	695	1480	2040	1730	1020	660	588	588
14	760	1020	724	853	695	1340	1950	1690	977	655	583	583
15	847	1080	724	840	677	1230	1830	1680	1040	649	583	588
16	977	1180	718	891	666	1160	1860	1610	904	649	593	588
17	970	1140	718	866	660	1090	1730	1640	898	644	588	588
18	970	1170	724	866	655	1080	1620	1610	898	655	588	598
19	970	1150	706	898	644	1080	1500	1520	859	649	583	623
20	970	1020	706	872	649	1090	1430	1490	847	644	588	944
21	977	1090	700	847	712	1030	1410	1510	840	634	593	1030
22	977	1080	695	809	809	1090	1480	1520	815	634	583	991
23	991	977	712	778	772	1240	1660	1500	803	629	573	970
24	904	931	644	754	754	1230	2030	1430	784	629	655	1300
25	1340	944	660	754	748	1180	2460	1350	760	629	649	1270
26	1180	937	924	760	778	1140	2440	1580	754	629	706	1160
27	1070	931	1330	700	917	1750	2160	1570	748	623	613	1050
28	1050	917	1050	677	1940	1730	2040	1540	754	618	613	1080
29	1030	911	924	666	---	1520	2040	1460	724	613	677	1140
30	1020	911	847	671	---	1400	2270	1390	724	608	689	1590
31	1050	---	790	683	---	1370	---	1360	---	608	677	---
TOTAL	28017	31757	24354	23278	20552	47140	60020	56130	32959	20425	18878	24219
MEAN	904	1059	786	751	734	1521	2001	1811	1099	659	609	807
MAX	1340	1450	1330	898	1940	3160	3360	3240	1870	724	706	1590
MIN	760	878	644	618	629	1030	1410	1350	724	608	573	583
CFSM	1.89	2.21	1.64	1.57	1.53	3.18	4.18	3.78	2.29	1.38	1.27	1.69
IN.	2.18	2.47	1.89	1.81	1.60	3.66	4.66	4.36	2.56	1.59	1.47	1.88
AC-FT	55570	62990	48310	46170	40760	93500	119000	111300	65370	40510	37440	48040

CAL YR 1976 TOTAL 673132 MEAN 1839 MAX 10300 MIN 644 CFSM 3.84 IN 52.28 AC-FT 1335000
WTR YR 1977 TOTAL 387729 MEAN 1062 MAX 3360 MIN 573 CFSM 2.22 IN 30.11 AC-FT 769100

14210000 CLACKAMAS RIVER AT ESTACADA OR

LOCATION.--Lat 45°18'00", long 122°21'10", in NE¼ sec.19, T.3 S., R.4 E., Clackamas County, Hydrologic Unit 17090011, on left bank 0.2 mi (0.3 km) downstream from River Mill Dam, 1.5 mi (2.4 km) northwest of Estacada, and at mile 23.1 (37.2 km).

DRAINAGE AREA.--671 mi^2 (1,738 km^2).

PERIOD OF RECORD.--April 1908 to current year. Monthly discharge only April 1908, published in WSP 1318. Published as "near Cazadera" January 1909 to September 1957.

REVISED RECORDS.--WSP 1248: 1908-9, 1910(M), 1916, 1917(M), 1922(M), 1923. WSP 1288: Drainage area (former site). WSP 1638: 1919(M).

GAGE.--Water-stage recorder. Datum of gage is 296.93 ft (90.504 m) above mean sea level (levels by Portland General Electric Co.). See WSP 1738 for history of changes prior to Oct. 1, 1957. Oct. 1, 1957, to Feb. 16, 1965, water-stage recorder at same site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records excellent. Large diurnal fluctuations and some regulation caused by powerplants at River Mill Dam and, since 1958, North Fork Dam. Minor regulation since 1956 by Timothy Lake (see station 14208600). Two small diversions above station for Oregon City and Estacada municipal water supply.

AVERAGE DISCHARGE.--69 years, 2,753 ft^3/s (77.96 m^3/s), 55.72 in/yr (1,415 mm/yr), 1,995,000 acre-ft/yr (2.46 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 86,900 ft^3/s (2,460 m^3/s) Dec. 22, 1964, gage height, 18.36 ft (5.596 m); minimum, 50 ft^3/s (1.42 m^3/s) Mar. 10, 1961, from rating curve extended below 260 ft^3/s (7.36 m^3/s); minimum daily, 285 ft^3/s (8.07 m^3/s) Oct. 4, 5, 1958, caused by filling of North Fork dam forebay.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,470 ft^3/s (155 m^3/s) Mar. 8, gage height, 4.25 ft (1.295 m), no peak above base of 15,000 ft^3/s (425 m^3/s); minimum, 580 ft^3/s (16.4 m^3/s) May 1, July 9, 15, Sept. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	837	1740	1070	989	895	2750	2600	2850	2590	935	715	875
2	881	1520	1070	1000	888	2460	2590	3120	2070	808	715	746
3	928	1470	1080	996	875	2490	2490	4120	2070	820	660	757
4	935	1420	875	935	888	2300	2650	4100	2320	996	675	791
5	962	1310	832	948	881	2000	2680	3510	2850	962	690	1130
6	901	1200	832	868	862	2050	3250	3250	2900	935	680	915
7	895	1160	875	832	837	2710	4210	2930	2570	935	680	768
8	928	1250	962	826	763	4430	4670	2700	2200	948	685	746
9	948	1220	1080	832	768	4310	4020	2630	1880	875	680	780
10	955	1100	1110	791	797	2930	3250	2950	1860	780	670	751
11	969	1150	855	837	862	2460	2800	3130	1750	849	655	690
12	955	1120	875	948	868	2320	2680	2600	1670	791	660	685
13	982	1160	948	1360	862	2250	2830	2570	1550	791	660	685
14	921	1190	941	1350	948	1980	2830	2400	1400	814	660	675
15	901	1300	941	1200	921	1830	2600	2480	1340	797	650	650
16	875	1460	855	1360	888	1710	2800	2490	1390	791	636	645
17	1130	1440	862	1240	881	1570	2600	2960	1320	791	640	627
18	1150	1640	935	1230	868	1560	2420	3020	1300	832	640	631
19	1030	1390	888	1280	837	1600	2200	2650	1240	843	640	725
20	1120	1180	888	1330	832	1690	2030	2400	1180	826	645	1280
21	1140	1270	849	1200	855	1530	2030	2360	1190	820	650	1340
22	1120	1300	862	1130	1150	1620	2110	2420	1190	791	660	1400
23	1080	1200	875	1070	1080	1970	2320	2290	1120	774	660	1240
24	1060	1160	935	1060	1000	1920	2910	2260	1080	774	774	1970
25	1360	1140	895	1060	1000	1790	3350	2090	975	768	881	1720
26	1830	1140	1500	1010	1030	1710	3390	2280	1150	768	989	1710
27	1380	1130	1860	996	1390	2710	3340	2510	1040	763	881	1370
28	1360	1120	1820	915	2620	3150	2910	2330	928	740	751	1440
29	1040	1090	1330	875	---	2360	2240	2250	948	710	969	1730
30	1220	1080	1190	797	---	2110	2960	2160	962	700	921	2900
31	1300	---	1030	862	---	2070	---	2070	---	700	780	---
TOTAL	33093	38050	31920	32127	27346	70340	85760	83880	48033	25427	22252	32372
MEAN	1068	1268	1030	1036	977	2269	2859	2706	1601	820	718	1079
MAX	1830	1740	1860	1360	2620	4430	4670	4120	2900	996	989	2900
MIN	837	1080	832	791	763	1530	2030	2070	928	700	636	627
CFSM	1.59	1.89	1.54	1.54	1.46	3.38	4.26	4.03	2.39	1.22	1.07	1.61
IN.	1.83	2.11	1.77	1.78	1.52	3.90	4.75	4.65	2.66	1.41	1.23	1.79
AC-FT	65640	75470	63310	63720	54240	139500	170100	166400	95270	50430	44140	64210

CAL YR 1976 TOTAL 904283 MEAN 2471 MAX 17600 MIN 785 CFSM 3.68 IN 50.13 AC-FT 1794000
WTR YR 1977 TOTAL 530600 MEAN 1454 MAX 4670 MIN 627 CFSM 2.17 IN 29.42 AC-FT 1052000

14211000 CLACKAMAS RIVER NEAR CLACKAMAS, OR

LOCATION.--Lat 45°23'36", long 122°31'54", in NE¼SW¼ sec.14, T.2 S., R.2 E., Clackamas County, Hydrologic Unit 17090011, on left bank 0.8 mi (1.3 km) upstream from Johnson Creek, 2.1 mi (3.4 km) southeast of Clackamas, and at mile 4.8 (7.7 km).

DRAINAGE AREA.--930 mi² (2,409 km²) at gage, 936 mi² (2,424 km²) at Gladstone Bridge 3.6 mi (5.8 km) downstream, where high-flow discharge measurements are made.

PERIOD OF RECORD.--September 1911 to April 1912 (published as "at Park Place"), October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 50.68 ft (15.447 m) above mean sea level (levels by Corps of Engineers). Sept. 15, 1911, to Apr. 22, 1912, nonrecording gage at site 3.6 mi (5.8 km) downstream at different datum. Oct. 1, 1962, to Sept. 10, 1969, water-stage recorder at site 300 ft (91 m) downstream at present datum.

REMARKS.--Records good. Diurnal fluctuations and some regulation by powerplants and several storage dams upstream, operated by Portland General Electric Co. Small diversions above station for Estacada municipal water supply. All records given herein are for gage site.

AVERAGE DISCHARGE.--15 years, 3,718 ft³/s (105.3 m³/s), 54.29 in/yr (1,379 mm/yr), 2,694,000 acre-ft/yr (3.32 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 120,000 ft³/s (3,400 m³/s) Dec. 22, 1964, gage height, 27.0 ft (8.23 m), from floodmarks; minimum, 336 ft³/s (9.52 m³/s) Sept. 1, 11, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,640 ft³/s (216 m³/s) Mar. 8, gage height, 6.08 ft (1.853 m), no peak above base of 16,000 ft³/s (453 m³/s); minimum, 519 ft³/s (14.7 m³/s) July 16.

DISCHARGF, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	856	1880	1080	1070	1010	4170	3420	3100	2880	1030	689	885
2	893	1800	1070	1110	989	3710	3760	3620	2640	878	702	798
3	972	1710	1110	1080	980	3820	3440	4650	2540	878	656	805
4	956	1500	948	1050	972	3440	3400	5130	3150	1040	630	878
5	964	1430	849	989	964	2880	3230	4350	3890	1050	662	1210
6	900	1290	849	924	948	2760	3910	4040	3650	1020	656	1130
7	885	1200	900	856	916	3580	5300	3580	3320	989	649	827
8	900	1250	924	841	863	6540	6050	3340	2740	1010	649	791
9	940	1290	1170	841	805	6500	5300	3200	2510	956	649	777
10	956	1190	1180	863	849	4710	4040	3560	2310	849	630	784
11	1010	1130	980	849	924	3600	3370	4250	2180	885	617	709
12	964	1160	932	956	980	3620	3170	3470	2020	834	617	682
13	972	1190	940	1630	964	3510	3270	3250	1870	827	611	675
14	956	1190	1010	1970	1010	3010	3420	2980	1570	827	611	662
15	900	1340	964	1520	1030	2710	3120	2990	1560	834	605	643
16	870	1530	948	1680	1010	2410	3460	3050	1620	777	586	623
17	989	1560	900	1590	948	2200	3340	3820	1480	813	586	617
18	1140	1830	980	1440	956	2120	3010	4290	1400	885	580	617
19	1100	1520	940	1490	916	2150	2740	3540	1380	893	586	669
20	1060	1340	932	1540	924	2270	2450	3090	1320	863	586	1180
21	1120	1320	885	1410	948	2070	2440	2960	1340	834	605	1480
22	1120	1350	885	1370	1190	2070	2450	2940	1310	813	611	1540
23	1080	1320	948	1230	1350	2410	2660	2820	1230	784	630	1410
24	1040	1220	980	1210	1290	2450	3150	2790	1200	777	763	2330
25	1360	1170	1020	1190	1240	2280	3950	2580	1070	777	997	2100
26	2000	1170	1630	1140	1280	2110	3980	2680	1230	777	1160	1940
27	1660	1170	2230	1110	1480	3100	3800	3090	1190	763	980	1630
28	1420	1150	2100	1030	3580	3800	3460	2990	997	736	813	1490
29	1100	1140	1680	964	---	3320	2540	2840	1010	715	948	1820
30	1230	1120	1360	932	---	2810	3220	2680	1020	689	1120	3440
31	1260	---	1190	924	---	2740	---	2600	---	682	849	---
TOTAL	33573	40460	34514	36799	31316	98870	104850	104270	57627	26485	22033	35142
MEAN	1083	1349	1113	1187	1118	3189	3495	3364	1921	854	711	1171
MAX	2000	1880	2230	1970	3580	6540	6050	5130	3890	1050	1160	3440
MIN	856	1120	849	841	805	2070	2440	2580	997	682	580	617
CFSM	1.17	1.45	1.20	1.28	1.20	3.43	3.76	3.62	2.07	.92	.77	1.26
IN.	1.34	1.62	1.38	1.47	1.25	3.95	4.19	4.17	2.31	1.06	.88	1.41
AC-FT	66590	80250	68460	72990	62120	196100	208000	206800	114300	52530	43700	69700

CAL YR 1976 TOTAL 1117669 MEAN 3054 MAX 20800 MIN H41 CFSM 3.28 IN 44.71 AC-FT 2217000
WTR YR 1977 TOTAL 625939 MEAN 1715 MAX 6540 MIN 580 CFSM 1.84 IN 25.04 AC-FT 1242000

14211500 JOHNSON CREEK AT SYCAMORE, OR

LOCATION.--Lat 45°28'40", long 122°30'24", in lot 2, SW¼ sec.13, T.1 S., R.2 E., Multnomah County, Hydrologic Unit 17090012, on right bank 0.3 mi (0.5 km) southwest of Sycamore station, 2.5 mi (4.0 km) east of city limits of Portland, and at mile 10.2 (16.4 km).

DRAINAGE AREA.--26.5 mi² (68.6 km²), revised.

PERIOD OF RECORD.--July 1940 to current year.

REVISED RECORDS.--WSP 1318: 1941(M). WDR OR-75-1: 1974.

GAGE.--Water-stage recorder and V-notch weir. Datum of gage is 228.47 ft (69.638 m) above mean sea level.

REMARKS.--Records good except those for June to September, which are fair. Slight diurnal fluctuation at low flow caused by recreational ponds upstream. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--37 years, 54.5 ft³/s (1.543 m³/s), 26.25 in/yr (667 mm/yr), 39,490 acre-ft/yr (48.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,620 ft³/s (74.2 m³/s) Dec. 22, 1964, gage height, 14.68 ft (4.474 m); minimum, 0.08 ft³/s (0.002 m³/s) Aug. 21, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 329 ft³/s (9.32 m³/s) Mar. 9, gage height, 5.34 ft (1.628 m), no peak above base of 500 ft³/s (14.2 m³/s); minimum, 0.19 ft³/s (0.005 m³/s) Aug. 12, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.93	11	1.6	4.1	5.5	195	36	3.3	31	1.7	.49	2.7
2	1.1	5.5	1.5	5.2	4.1	157	30	7.9	22	1.5	.45	2.3
3	1.1	3.5	1.5	6.0	3.5	154	25	16	28	1.6	.45	4.7
4	1.1	4.1	1.5	4.7	3.1	81	22	18	164	1.8	.42	10
5	.87	3.9	1.6	6.9	3.0	53	20	19	98	2.0	.36	7.6
6	.87	2.8	1.6	4.1	3.0	50	18	21	55	2.1	.36	4.5
7	.93	3.9	1.4	4.1	2.8	148	16	17	35	2.0	.45	3.0
8	.66	3.3	6.6	3.9	2.8	156	17	24	25	1.7	.36	2.4
9	.71	2.5	4.1	3.5	2.7	228	17	18	20	1.5	.36	2.2
10	1.6	2.5	2.7	3.9	2.8	121	14	33	16	1.4	.36	2.0
11	3.1	3.3	2.3	4.3	3.0	76	12	46	13	1.3	.33	1.8
12	1.1	3.9	2.2	6.3	3.0	233	10	31	12	1.2	.26	1.6
13	.93	3.9	1.9	56	5.2	179	13	25	10	1.2	.26	1.4
14	.76	6.3	1.7	28	3.5	106	11	21	9.4	1.1	.28	1.4
15	.87	8.8	1.6	20	3.1	68	11	21	8.3	1.2	.31	1.4
16	.81	7.7	1.6	16	3.0	47	12	25	7.4	1.3	.26	1.3
17	.87	7.2	1.5	13	2.8	36	10	56	6.9	1.3	.24	1.4
18	.61	8.6	1.9	11	2.7	31	9.0	53	5.7	4.5	.26	3.1
19	.71	6.3	1.6	10	2.7	39	8.5	37	5.2	1.9	.26	6.3
20	.66	4.5	1.6	9.2	5.5	31	7.9	29	4.7	1.4	.28	4.7
21	.76	3.9	1.5	8.1	14	26	7.7	24	4.7	1.1	.39	10
22	.76	4.1	1.5	7.1	21	23	7.4	20	4.3	.93	.66	5.0
23	.93	3.1	4.7	6.6	21	28	6.8	21	3.5	.81	.53	16
24	3.5	2.7	3.1	5.5	32	27	6.3	23	3.0	.71	12	27
25	8.3	2.5	4.5	5.0	31	22	6.8	17	2.7	.76	21	21
26	2.7	2.3	25	4.5	32	19	6.3	21	2.5	1.4	29	12
27	1.4	2.2	21	5.5	38	43	5.0	19	2.3	.76	6.8	9.2
28	1.5	2.2	10	5.0	191	50	4.3	18	2.2	.71	5.0	11
29	3.1	1.9	9.0	3.7	---	56	3.9	15	2.1	.66	3.5	19
30	1.0	1.8	6.9	3.7	---	41	3.7	14	1.9	.61	9.0	24
31	6.0	---	5.2	4.3	---	35	---	43	---	.57	4.3	---
TOTAL	50.24	130.2	134.4	279.2	447.8	2559	377.6	756.2	605.8	42.72	98.98	220.0
MEAN	1.62	4.34	4.34	9.01	16.0	82.5	12.6	24.4	20.2	1.38	3.19	7.33
MAX	8.3	11	25	56	191	233	36	56	164	4.5	29	27
MIN	.61	1.8	1.4	3.5	2.7	19	3.7	3.3	1.9	.57	.24	1.3
CFSM	.06	.16	.16	.34	.60	3.11	.48	.92	.76	.05	.12	.28
IN.	.07	.18	.19	.39	.63	3.59	.53	1.06	.85	.06	.14	.31
AC-FT	100	258	267	554	888	5080	749	1500	1200	85	196	436

CAL YR 1976 TOTAL 14067.68 MEAN 38.4 MAX 744 MIN .61 CFSM 1.45 IN 19.75 AC-FT 27900
WTR YR 1977 TOTAL 5702.14 MEAN 15.6 MAX 233 MIN .24 CFSM .59 IN 8.00 AC-FT 11310

14211720 WILLAMETTE RIVER AT PORTLAND, OR
(National stream-quality accounting network station)

LOCATION.--Lat 45°31'07", long 122°40'00", in NW¼NE¼ sec.3, T.1 S., R.1 E., Multnomah County, Hydrologic Unit 17090012, in pier at east end of drawspan on upstream side of Morrison Bridge in Portland and at mile 12.8 (20.6 km).

DRAINAGE AREA.--11,100 mi^2 (28,700 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year. Gage-height records collected in this vicinity since 1879 are in reports of the U.S. Weather Bureau.

GAGE.--Acoustic velocity meter (AVM) with water-stage and velocity-index recorder. Datum of gage is 1.55 ft (0.472 m) above mean sea level (levels by U.S. Weather Bureau).

REMARKS.--Water-discharge records fair. Flow regulated by many reservoirs upstream (see elsewhere in this report). Many diversions for irrigation above station.

AVERAGE DISCHARGE.--5 years, 32,620 ft^3/s (924 m^3/s), 23,630,000 acre-ft/yr (29.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 283,000 ft^3/s (8,010 m^3/s) Jan. 18, 1974; maximum gage height, 23.84 ft (7.266 m) Jan. 18, 1974; minimum daily discharge, 4,520 ft^3/s (128 m^3/s) Aug. 3, 1973.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of June 7, 1894, and June 1, 1948, reached stages of 33.0 ft (10.06 m) and 30.0 ft (9.14 m), respectively, from information by U.S. Weather Bureau.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 58,100 ft^3/s (1,650 m^3/s) Mar. 10; maximum gage height, 8.00 ft (2.438 m) Mar. 9; minimum daily discharge, 5,850 ft^3/s (166 m^3/s) Feb. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13700	17700	9710	8890	6860	38200	21100	12800	19800	7840	6890	9510
2	14500	19300	8910	8830	6910	37900	21800	12600	20300	7970	6680	9460
3	13800	19800	8650	9120	6780	33300	20500	16000	19100	7710	6560	9210
4	12800	17700	8440	9310	6680	29900	19200	21800	20800	7850	6470	8780
5	11900	15500	8410	8980	6610	25100	18600	26400	23300	8010	6670	9560
6	12800	15000	8390	8510	6520	21800	20500	27600	23800	7900	6890	10000
7	13500	14300	8170	8060	6510	25900	23400	27500	22800	7750	6950	9400
8	13300	13900	8300	7880	6300	44600	24600	24400	20100	7580	7000	8890
9	13700	14000	9260	7880	6120	54500	25100	23000	17200	7380	6850	9440
10	13100	13600	10000	7930	6080	58100	23400	22800	15600	7320	6760	9550
11	13700	13400	9300	7950	6240	49300	21700	24400	14700	7430	6660	9140
12	13900	13500	8780	8130	6380	43000	19500	24400	13600	7220	6780	9170
13	14100	13200	8640	9460	6370	42900	17800	24100	13000	7180	6670	9630
14	13800	13400	8530	11700	6540	36600	17200	20400	11700	7130	6730	9680
15	12900	13600	8370	11900	6510	30500	16800	18300	11100	7030	7140	9270
16	12700	15200	8310	11800	6370	26200	17500	18600	10800	6980	7740	9660
17	14000	16700	8140	11200	6180	23100	17300	19600	10200	7230	8080	9540
18	12800	17300	8050	10400	6030	20900	15400	28400	9770	7580	7760	9160
19	12600	17600	7910	9740	5860	20100	14600	31900	9450	7650	8260	9780
20	14400	16500	7800	9500	5850	20200	13800	29600	9270	7480	8340	12700
21	14200	15500	7680	9100	6240	19500	12900	25800	9300	7300	7790	13100
22	14500	15000	7610	8820	6150	18200	12500	23300	9070	7270	8110	13100
23	14700	14900	7710	8490	10700	18100	13100	22700	8780	7540	8610	13100
24	14300	14300	7750	8280	11100	19500	13500	19200	8470	7880	9390	18700
25	15100	13200	7840	8130	11200	18900	14400	20000	8060	7620	10000	17800
26	17500	11400	8990	7820	12100	17500	14800	18300	8230	7380	10900	16700
27	17400	10700	12300	7390	13400	19400	16800	19800	8300	7170	10400	15800
28	16200	10200	12700	7090	24800	24800	15100	21200	7800	7000	8930	16200
29	15500	10100	11400	6880	---	24800	13600	22800	7630	6940	8820	17400
30	15600	10100	10200	6760	---	23000	12300	23200	7500	6830	9910	20100
31	16100	---	9470	6700	---	21100	---	19700	---	6830	10500	---
TOTAL	439100	436600	275720	272630	225390	906900	528800	690600	399530	229980	245240	353530
MEAN	14160	14550	8894	8795	8050	29250	17630	22280	13320	7419	7911	11780
MAX	17500	19800	12700	11900	24800	58100	25100	31900	23800	8010	10900	20100
MIN	11900	10100	7610	6700	5850	17500	12300	12600	7500	6830	6470	8780
AC-FT	871000	866000	546900	540800	447100	1799000	1049000	1370000	792500	456200	486400	701200

CAL YR 1976 TOTAL 10387190 MEAN 28380 MAX 155000 MIN 7000 AC-FT 20600000
WTR YR 1977 TOTAL 5004020 MEAN 13710 MAX 58100 MIN 5850 AC-FT 9925000

NOTE.--AVM not operational Oct. 20 to Apr. 7, June 9 to Sept. 30.

14211720 WILLAMETTE RIVER AT PORTLAND, OR--Continued
(National stream quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1975 to current year.
WATER TEMPERATURES: November 1975 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily recorded, 120 micromhos/cm Feb. 8, 1977; minimum, 44 micromhos/cm Dec. 3, 1975.
WATER TEMPERATURES: Maximum, 27.0°C Aug. 10-13, 1977; minimum, 2.0°C Jan. 12-14, 1977.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily recorded, 120 micromhos/cm Feb. 8; minimum recorded, 56 micromhos/cm Apr. 11, May 9.
WATER TEMPERATURES: Maximum, 27.0°C Aug. 10-13; minimum, 2.0°C Jan. 12-14.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	DIS-CHARGE (CFS)	TEMPER-ATURE (DEG C)	PH (UNITS)	DIS-SOLVED OXYGEN (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	FECAL COLI-FORM .7UM-MF (COL./100 ML)	FECAL STREP-TOCOCCI KF AGAR (COL. PER 100 ML)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)
OCT												
26...	1200	17500	11.7	6.8	10.3	76	36	B23	16	6.5	2.0	5.0
DEC												
06...	1200	8390	5.6	7.5	13.8	90	76	B270	17	7.9	2.3	5.7
JAN												
07...	1030	8060	4.0	7.6	12.7	96	87	110	18	9.2	2.8	6.0
31...	1200	6700	4.0	7.2	12.1	103	260	480	17	8.8	2.6	6.5
MAR												
07...	1030	25900	7.1	6.9	11.7	74	94	120	14	5.9	2.1	4.6
25...	1300	18900	9.0	6.9	11.4	84	220	84	15	6.6	2.2	4.8
MAY												
03...	1100	16000	14.3	6.5	10.2	73	B500	250	5.2	6.5	2.0	4.6
27...	1030	19800	13.2	6.9	10.4	68	--	79	13	6.0	1.7	4.0
JUL												
07...	1330	7750	21.0	6.9	7.8	105	28	<1	13	9.4	4.1	6.1
29...	1300	6940	22.1	7.1	7.6	92	120	B19	11	6.9	2.4	6.5
AUG												
29...	1600	8820	18.7	6.2	8.4	86	--	--	15	7.9	2.1	6.1

DATE	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO
OCT												
26...	34	0	4.1	4.3	.1	.27	.42	.69	.08	24	0	.4
DEC												
06...	25	0	11	5.9	.1	.43	.65	1.1	.13	29	9	.5
JAN												
07...	29	0	11	6.9	.1	.64	.67	1.3	.13	35	11	.4
31...	36	0	7.4	7.7	.1	.50	.53	1.0	.14	33	3	.5
MAR												
07...	23	0	6.0	5.0	.0	.86	1.1	2.0	.07	23	5	.4
25...	27	0	6.0	4.8	.1	.54	.39	.93	.10	26	3	.4
MAY												
03...	25	0	5.4	4.9	.3	.37	.36	.73	.06	24	4	.4
27...	23	0	3.5	4.0	.0	.23	.22	.45	.05	22	3	.4
JUL												
07...	32	0	6.5	7.5	.0	.39	.59	.98	.15	40	14	.4
29...	30	0	5.8	6.1	.1	.43	.70	1.1	.13	27	3	.5
AUG												
29...	29	0	6.2	6.2	.1	.57	.30	.87	.12	28	5	.5

B: RESULTS BASED ON NON-IDEAL COLONY COUNT

14211720 WILLAMETTE RIVER AT PORTLAND, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TUR-BID-ITY (JTU)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT											
26...	55	56	2600	.07	5	12	567	83	11	28	.8
DEC											
06...	55	63	1250	.07	6	9	204	65	14	21	--
JAN											
07...	74	69	1610	.10	6	6	131	83	7	24	--
31...	75	69	1360	.10	5	6	109	79	3	30	3.2
MAR											
07...	69	50	4830	.09	10	12	839	96	2	19	--
25...	69	54	3520	.09	10	12	612	80	11	22	--
MAY											
03...	49	42	2120	.07	4	10	432	88	13	21	3.0
27...	52	44	2780	.07	3	13	695	78	12	19	--
JUL											
07...	62	63	1300	.08	9	27	565	73	24	26	--
29...	63	55	1180	.09	3	22	412	72	56	25	3.2
AUG											
29...	55	59	1310	.07	5	11	262	78	1	24	--

DATE	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)
OCT											
26...	510	30	30	20	0	0	0	0	20	0	0
JAN											
31...	440	60	20	20	6	0	<10	1	0	0	<50
MAY											
03...	440	50	40	10	0	0	<10	1	0	0	<50
JUL											
29...	850	70	50	20	--	1	<10	2	10	0	<50

DATE	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)
OCT											
26...	0	22	12	12	4	40	10	--	0	.1	.0
JAN											
31...	0	<10	4	<100	2	20	10	0	0	.2	.0
MAY											
03...	0	10	5	100	15	60	10	0	0	.0	.0
JUL											
29...	0	30	8	<100	17	30	0	2	1	.1	.0

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL FILT-RABLE RESIDUE (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS-PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS-SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS-PENDED GROSS BETA AS SR90 /Y90 (PC/L)	DIS-SOLVED GROSS BETA AS CS-137 (PC/L)	SUS-PENDED GROSS BETA AS CS-137 (PC/L)	DIS-SOLVED RA-226 (RADON METHOD) (PC/L)	DIS-SOLVED URANIUM (U) (UG/L)
JAN										
31...	67	3	<.7	<.4	1.1	<.4	1.4	<.4	.09	.03

14211720 WILLAMETTE RIVER AT PORTLAND, OR—Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO JULY 1977

DATE	OCT 26,76	DEC 6,76	JAN 7,77	JAN 31,77
TIME	1200	1200	1030	1200
TOTAL CELLS/ML	9000	14000	1600	2700
DIVERSITY: DIVISION	0.6	0.3	1.0	1.0
.CLASS	0.6	0.3	1.0	1.0
..ORDER	0.7	0.4	1.1	1.3
...FAMILY	0.8	0.5	1.5	1.8
....GENUS	0.9	0.6	1.7	1.9

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	50	1	*	0	*	0	*	0
....DICTYOSPHAERIUM	--	-	70	1	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	24	1
....OOCYSTIS	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....CRUCIGENIA	--	-	--	-	15	1	--	-
....SCENEDESMUS	--	-	*	0	15	1	--	-
....TETRASTRUM	--	-	--	-	--	-	--	-
..TETRASPORALES								
...PALMELLACEAE								
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	*	0
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	*	0	19	1	71	3
....MELOSIRA	600	6	*	0	34	2	79	3
....STEPHANODISCUS	--	-	*	0	15	1	16	1
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	*	0	15	1	55	2
....COCCONEIS	100	1	*	0	*	0	24	1
....RHOICOSPHENIA	50	1	*	0	11	1	32	1
...CYMBELLACEAE								
....AMPHORA	--	-	*	0	--	-	--	-
....CYMBELLA	--	-	130	1	87	5	130	5
....EPITHEMIA	100	1	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	*	0	*	0	16	1
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	*	0	--	-	*	0
....FRAGILARIA	--	-	*	0	38	2	--	-
....HANNAEA	--	-	--	-	--	-	--	-
....SYNEDRA	--	-	*	0	*	0	*	0
...GOMPHONEMATACEAE								
....GOMPHONEMA	300	3	*	0	19	1	32	1
...NAVICULACEAE								
....CALONEIS	--	-	--	-	--	-	--	-
....FRUSTULIA	--	-	--	-	--	-	--	-
....NAVICULA	50	1	76	1	*	0	63	2
....STAURONEIS	50	1	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	--	-	*	0	76	5	208	7
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	--	-	--	-
...TABELLARIACEAE								
....TABELLARIA	--	-	*	0	--	-	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...CHROMULINACEAE								
....CHRYSOCOCCUS	--	-	*	0	--	-	--	-
...OCHROMONADACEAE								
....DINOBRYON	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	--	-	--	-	32	1
....COCCOCHLORIS	--	-	100	1	--	-	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....APHANIZOMENON	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	8500#	87	13000#	94	1200#	76	1900#	70
...RIVULARIACEAE								
....RAPHIDIOPSIS	--	-	--	-	--	-	16	1
EUGLENOPHYTA (EUGLENOIDS)								
.CRYPTOPHYCEAE								
..CRYPTOMONIDALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	--	-	16	1
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	*	0	--	-
....TRACHELOMONAS	--	-	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

14211720 WILLAMETTE RIVER AT PORTLAND, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO JULY 1977

DATE TIME	MAY 3,77 1100	MAY 27,77 1030	JUL 29,77 1300
TOTAL CELLS/ML	3700	2200	27000
DIVERSITY: DIVISION	0.7	1.1	1.2
.CLASS	0.7	1.1	1.3
..ORDER	1.5	1.6	1.8
...FAMILY	2.4	3.4	2.0
....GENUS	3.0	3.8	2.6

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...MICRACTINIACEAE						
....GOLENKINIA	--	-	13	1	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	100	3	40	2	420	2
....DICTYOSPHAERIUM	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	630	2
....OOCYSTIS	--	-	--	-	420	2
....SELENASTRUM	--	-	26	1	--	-
...SCENEDESMACEAE						
....CRUCIGENIA	--	-	--	-	--	-
....SCENEDESMUS	100	3	--	-	840	3
....TETRASTRUM	--	-	53	2	420	2
..TETRASPORALES						
...PALMELLACEAE						
....SPHAEROCYSTIS	--	-	--	-	2300	9
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	--	-	13	1	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	1500#	39	150	7	1900	7
....MELOSIRA	500	13	79	4	14000#	52
....STEPHANODISCUS	--	-	13	1	420	2
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	210	6	150	7	*	0
....COCCONEIS	--	-	26	1	*	0
....RHOICOSPHENIA	78	2	26	1	--	-
...CYMBELLACEAE						
....AMPHORA	--	-	*	0	--	-
....CYMBELLA	180	5	410#	19	--	-
....EPITHEMIA	--	-	13	1	--	-
...DIATOMACEAE						
....DIATOMA	26	1	79	4	*	0
...FRAGILARIACEAE						
....ASTERIONELLA	340	9	190	8	1500	6
....FRAGILARIA	--	-	*	0	--	-
....HANNAEA	26	1	--	-	--	-
....SYNEDRA	26	1	53	2	*	0
...GOMPHONEMATACEAE						
....GOMPHONEMA	130	3	66	3	--	-
...NAVICULACEAE						
....CALONEIS	--	-	*	0	--	-
....FRUSTULIA	--	-	*	0	--	-
....NAVICULA	26	1	110	5	--	-
....STAURONEIS	--	-	--	-	--	-
...NITZSCHIACEAE						
....NITZSCHIA	210	6	210	10	210	1
...SURIRELLACEAE						
....SURIRELLA	--	-	*	0	--	-
...TABELLARIACEAE						
....TABELLARIA	--	-	--	-	--	-
.CHRYSOPHYCEAE						
..CHRYSOMONADALES						
...CHROMULINACEAE						
....CHRYSOCOCCUS	--	-	--	-	--	-
...OCHROMONADACEAE						
....DINOBRYON	--	-	--	-	320	1
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROCCOCCALES						
...CHROCCOCCAEAE						
....ANACYSTIS	310	8	--	-	2700	10
....COCCOCHLORIS	--	-	--	-	--	-
..HORMOGONALES						
...NOSTOCACEAE						
....APHANIZOMENON	--	-	330	15	--	-
...OSCILLATORIACEAE						
....OSCILLATORIA	--	-	170	8	--	-
...RIVULARIACEAE						
....RAPHIDIOPSIS	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.CRYPTOPHYCEAE						
..CRYPTOMONIDALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	--	-	--	-	--	-
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	--	-	--	-	--	-
....TRACHELOMONAS	--	-	--	-	210	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

14211720 WILLAMETTE RIVER AT PORTLAND, OR—Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	LENGTH OF EXPO-SURE (DAYS)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	CHLOR-A PERI-PHYTON CHROMO-SPECT-METRIC (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-SPECT-METRIC (MG/M2)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)
OCT						
26...	34	114	10.8	1.71	--	--
JAN						
07...	32	1448	.212	.164	--	--
JUL						
29...	--	18670	--	--	2.03	1.15

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	78			---	---	64	71	63	---	89	87
2	86	79			102	---	64	71	66	---	90	87
3	84	79			103	---	63	72	69	---	87	88
4	83	76			106	---	64	72	73	---	92	89
5	83	78			110	---	65	71	87	---	92	86
6	81	76			114	---	62	64	87	---	91	85
7	79	73			119	---	63	61	88	---	93	86
8	79	74			120	---	63	57	74	---	93	88
9	81	77			113	---	60	56	---	---	87	88
10	81	77			115	---	59	57	---	---	94	91
11	82	76			---	---	56	57	---	---	95	92
12	82	75			---	---	60	57	---	---	94	90
13	80	74			---	---	62	59	---	---	96	86
14	82	76			---	---	80	59	---	---	95	89
15	80	68			---	---	116	60	---	---	95	90
16	79	71			---	---	96	59	---	---	95	87
17	75	75			---	---	107	61	---	---	94	87
18	75	74			---	---	95	61	---	---	93	89
19	76	73			---	---	74	65	---	88	92	86
20	78	72			---	---	86	63	---	91	91	87
21	75	68			---	---	96	60	---	92	91	88
22	74	72			---	---	98	59	---	92	88	88
23	74	78			---	---	85	59	---	93	86	89
24	74	79			---	---	79	59	---	92	85	90
25	77	79			---	---	83	62	---	93	85	89
26	76	80			---	73	83	63	---	91	84	84
27	75	80			---	72	77	66	---	91	85	81
28	74	86			---	69	75	64	---	91	88	79
29	77	82			---	66	74	66	---	91	88	77
30	78	---			---	68	73	68	---	92	87	77
31	78	---			---	65	---	62	---	87	86	---

14211720 WILLAMETTE RIVER AT PORTLAND, OR--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTORER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.0	17.0	12.0	11.5	8.0	7.0	5.0	5.0	4.5	4.5	7.5	7.0
2	18.0	17.0	12.0	11.5	7.5	6.5	5.0	5.0	4.5	4.0	7.0	7.0
3	18.0	17.0	12.5	12.0	6.5	6.0	5.0	4.5	4.5	4.0	7.0	6.5
4	17.5	17.0	13.0	12.5	6.0	5.5	5.0	4.5	4.5	4.0	7.0	6.5
5	17.5	16.5	13.0	12.5	5.5	5.0	4.5	4.0	4.5	4.0	7.0	6.5
6	17.0	16.0	13.5	12.5	5.5	5.0	4.0	3.5	4.5	4.0	7.0	6.5
7	16.5	15.5	12.5	12.0	5.5	5.0	3.5	3.0	5.0	4.5	7.0	7.0
8	16.0	15.5	12.5	12.0	5.5	5.5	3.5	3.0	4.5	4.0	7.0	7.0
9	16.0	15.0	12.5	12.0	5.5	5.0	3.0	2.5	5.0	4.5	7.0	6.5
10	16.0	15.0	12.5	11.5	5.5	5.5	3.0	2.5	5.5	5.0	7.0	6.5
11	16.0	15.5	12.0	11.5	6.0	5.5	2.5	2.5	5.5	5.5	7.0	6.5
12	16.5	15.5	12.0	11.5	6.0	5.5	2.5	2.0	6.0	5.5	7.0	7.0
13	16.5	15.5	11.5	11.0	6.0	5.5	2.5	2.0	6.0	6.0	7.5	7.0
14	16.5	15.5	11.5	11.0	6.0	5.5	2.5	2.0	6.5	6.0	7.5	7.0
15	16.0	15.0	11.5	11.0	6.5	6.0	2.5	2.5	7.0	6.0	7.5	7.0
16	15.5	15.0	11.5	11.0	6.5	6.0	3.5	2.5	7.0	6.5	7.5	7.0
17	15.5	14.5	11.5	11.0	6.0	6.0	4.5	3.5	7.0	6.5	7.5	7.0
18	15.0	14.0	11.0	11.0	6.0	5.5	5.0	4.0	7.5	7.0	7.5	7.0
19	14.5	13.5	11.5	11.0	6.0	5.5	5.5	5.0	8.0	7.5	7.5	7.0
20	14.0	13.0	11.5	11.0	5.5	5.5	6.0	5.5	8.5	8.0	8.0	7.5
21	13.5	13.0	11.5	11.0	5.5	5.5	6.0	5.5	9.0	8.5	8.5	8.0
22	13.5	12.5	11.5	10.5	6.0	5.5	6.0	5.5	9.0	8.5	9.0	8.0
23	13.0	12.5	11.0	10.0	6.0	5.5	5.5	5.5	9.0	8.5	9.0	8.5
24	13.0	12.0	10.0	9.5	6.0	5.5	5.5	5.0	8.5	8.0	9.0	8.5
25	12.5	12.0	10.0	9.5	6.0	5.5	5.5	5.0	8.5	8.0	9.5	8.5
26	12.5	12.0	9.5	9.0	6.0	5.5	6.0	5.0	8.5	8.0	9.5	9.0
27	12.5	12.0	9.5	8.5	6.0	5.5	5.5	5.5	8.0	7.5	10.0	9.0
28	12.5	11.5	9.0	8.0	5.5	5.0	5.5	5.0	8.0	7.5	9.5	9.0
29	12.0	11.5	8.5	8.0	5.5	5.0	5.0	5.0	---	---	9.0	8.5
30	12.5	12.0	8.0	7.5	5.5	5.0	5.0	4.5	---	---	9.0	8.5
31	12.5	11.5	---	---	5.0	5.0	5.0	4.5	---	---	9.0	8.5
MONTH	18.0	11.5	13.5	7.5	8.0	5.0	6.0	2.0	9.0	4.0	10.0	6.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMRER	
1	8.5	8.5	14.5	14.0	13.5	12.5	22.5	21.5	24.0	22.0	19.5	18.0
2	9.0	8.5	---	---	13.5	13.0	22.5	21.5	23.0	21.0	19.5	18.0
3	9.0	8.5	---	---	14.0	13.5	22.0	21.0	25.0	22.5	20.0	18.5
4	10.0	8.5	14.5	13.5	14.5	13.5	22.0	21.0	25.0	23.0	20.0	18.5
5	10.0	9.0	14.0	13.0	15.5	14.5	21.5	20.5	25.0	23.0	20.5	19.0
6	11.0	9.5	13.0	12.5	16.5	15.5	21.5	20.5	26.0	23.0	20.5	18.5
7	11.5	10.5	12.5	12.0	17.5	15.5	22.0	20.0	26.5	23.0	21.0	19.0
8	12.0	11.0	12.5	11.5	18.5	16.5	22.0	20.5	26.5	22.5	20.0	19.0
9	12.0	11.5	12.5	11.5	18.0	17.0	21.0	20.0	26.5	24.0	20.0	19.0
10	12.0	11.5	12.5	12.0	18.0	17.0	21.0	20.0	27.0	24.5	20.5	19.0
11	12.5	12.0	13.0	12.5	18.0	17.0	21.0	19.5	27.0	24.5	20.5	19.0
12	12.0	11.0	13.5	12.5	18.0	17.0	20.0	19.5	27.0	24.5	21.5	19.0
13	11.5	10.5	13.5	13.0	18.0	17.0	20.0	19.0	27.0	24.5	21.0	19.5
14	11.5	10.5	13.5	12.5	18.0	17.0	21.0	19.5	26.5	24.5	20.5	19.5
15	12.0	10.5	13.0	12.5	18.5	17.5	21.0	20.0	26.5	24.5	20.5	19.0
16	12.0	11.5	13.0	12.0	19.0	17.5	21.5	20.0	26.0	24.5	20.0	19.0
17	12.0	11.5	13.0	12.0	19.5	18.0	21.0	20.0	26.0	24.5	20.0	19.0
18	13.0	12.0	12.5	12.0	19.0	18.5	21.5	20.5	26.0	24.0	20.0	18.5
19	13.0	12.0	12.5	12.0	---	---	21.5	20.5	26.0	24.5	19.5	18.5
20	13.0	12.0	12.5	12.0	---	---	22.0	20.5	25.5	24.0	19.0	17.5
21	13.0	12.0	12.5	11.5	---	---	23.0	20.5	25.0	22.0	18.5	17.0
22	13.0	12.5	13.0	12.0	---	---	23.5	21.0	24.5	22.0	18.0	16.5
23	13.5	12.0	13.5	12.5	---	---	23.5	21.5	24.0	22.0	18.0	16.5
24	13.0	12.5	13.5	13.0	---	---	24.0	21.5	23.0	21.5	17.5	16.5
25	13.5	12.5	14.5	13.5	---	---	23.0	21.0	22.5	20.0	17.0	16.0
26	14.0	13.0	14.5	13.5	---	---	23.5	21.5	21.5	19.5	17.0	16.0
27	14.5	13.5	14.5	13.5	---	---	23.5	21.5	20.5	19.0	16.5	15.5
28	15.0	14.0	14.0	13.0	---	---	24.0	22.0	20.0	18.5	16.5	15.5
29	15.0	14.0	14.5	13.5	---	---	24.5	22.0	20.0	18.5	16.0	15.5
30	15.0	14.0	14.5	13.5	---	---	24.5	22.0	19.5	18.0	16.5	15.5
31	---	---	14.0	13.0	---	---	24.5	22.5	19.5	18.0	---	---
MONTH	15.0	8.5	14.5	11.5	19.5	12.5	24.5	19.0	27.0	18.0	21.5	15.5

14222880 COLUMBIA RIVER AT COLUMBIA CITY, OR

LOCATION.--Lat 45°53'41", long 122°48'23", in NE¼NE¼ sec.28, T.5 N., R.1 W., Columbia County, Hydrologic Unit 17080003, on left bank in Columbia City, at the pumping station at the corner of "E" Street and "The Strand", and at mile 84.0 (135.2 km).

DRAINAGE AREA.--254,000 mi² (657,900 km²), approximately.

PERIOD OF RECORD.--October 1971 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is at Columbia River datum, 0.79 ft (0.241 m) above mean sea level.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 19.68 ft (5.998 m) Jan. 19, 1974; minimum, -0.10 ft (-0.030 m) Sept. 9, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 7.97 ft (2.429 m) Mar. 9; minimum recorded, 0.00 ft (0.000 m) July 6, 7, 10.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	4.74	2.16	3.39	4.85	2.82	3.70			
2	---	---	---	4.71	2.16	3.33	5.15	2.58	3.70			
3	---	---	---	4.68	2.05	3.25	5.35	2.40	3.60			
4	---	---	---	5.14	2.20	3.50	4.80	1.38	3.30			
5	---	---	---	5.21	2.27	3.66	4.44	1.22	2.70			
6	---	---	---	4.84	2.08	3.37	4.68	1.22	3.00			
7	---	---	---	5.05	2.00	3.48	5.22	1.65	3.50			
8	---	---	---	5.03	2.11	3.38	5.80	1.95	3.90			
9	---	---	---	5.16	1.82	3.43	5.20	2.40	3.80			
10	---	---	---	5.20	2.14	3.53	4.60	1.84	3.20			
11	---	---	---	5.05	2.13	3.50	---	---	---			
12	---	---	---	4.66	1.98	3.27	---	---	---			
13	---	---	---	4.49	1.77	3.18	---	---	---			
14	---	---	---	4.40	1.79	3.25	---	---	---			
15	---	---	---	4.37	2.00	3.22	---	---	---			
16	---	---	---	4.93	1.72	3.26	---	---	---			
17	---	---	---	5.44	1.80	3.50	5.93	2.91	---			
18	4.22	1.36	2.89	5.50	2.13	3.61	6.16	2.54	4.14			
19	4.69	2.36	3.50	5.65	2.03	3.67	5.81	2.19	3.81			
20	5.57	2.80	4.07	5.81	2.39	3.89	5.70	1.98	3.66			
21	5.90	2.69	4.21	6.29	2.56	4.17	6.23	2.30	4.25			
22	6.31	3.10	4.56	6.37	2.70	4.39	6.35	2.55	4.24			
23	6.28	2.89	4.55	6.46	2.86	4.41	6.39	3.14	4.74			
24	6.11	2.23	4.03	6.12	2.78	4.34	5.18	2.70	3.97			
25	6.19	2.43	4.17	5.69	2.87	4.20	4.84	1.89	3.45			
26	5.88	2.82	4.14	4.71	2.33	3.46	---	---	---			
27	5.62	2.56	3.94	4.07	1.47	2.86	---	---	---			
28	5.04	2.38	3.67	4.16	1.87	2.89	---	---	---			
29	4.74	2.68	3.75	4.15	1.12	2.67	---	---	---			
30	4.18	2.35	3.25	4.63	2.30	3.60	---	---	---			
31	4.90	1.72	3.39	---	---	---	---	---	---			
MONTH	6.31	1.36	3.86	6.46	1.12	3.52	6.39	1.22	3.70			

14222880 COLUMBIA RIVER AT COLUMBIA CITY, OR--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	4.82	2.56	3.69	4.44	2.11	3.30	4.74	1.71	3.18
2	---	---	---	5.00	2.56	3.63	4.64	1.77	3.18	5.23	2.18	3.77
3	---	---	---	5.23	2.86	4.15	4.67	1.42	3.10	6.42	2.75	4.93
4	---	---	---	5.27	2.44	3.94	4.56	1.39	3.09	7.13	3.89	5.45
5	---	---	---	5.33	2.32	3.69	5.08	1.56	3.29	7.29	4.15	5.50
6	---	---	---	5.79	2.42	4.06	5.21	1.74	3.38	6.92	3.66	5.09
7	---	---	---	6.49	2.84	4.80	5.41	2.01	3.59	6.32	3.12	4.57
8	---	---	---	7.11	3.99	5.56	5.38	1.93	3.51	5.70	2.76	4.16
9	5.16	2.01	3.35	7.97	4.51	6.07	4.84	1.52	3.06	5.18	2.53	3.92
10	5.49	1.76	3.60	6.71	4.07	5.17	4.01	0.78	2.43	4.75	2.33	3.63
11	4.78	1.71	3.05	5.85	3.23	4.44	3.72	0.96	2.36	4.60	2.10	3.29
12	4.61	1.09	2.72	6.06	3.36	4.45	3.33	0.84	2.19	4.75	2.15	3.33
13	4.12	0.69	2.27	5.57	2.85	4.12	3.85	1.23	2.56	5.14	2.30	3.55
14	4.35	1.14	2.49	5.21	2.62	3.83	3.85	1.56	2.69	5.15	2.37	3.59
15	4.81	1.68	3.06	5.34	2.70	3.95	4.49	1.72	3.04	5.18	2.31	3.61
16	5.30	1.84	3.46	5.38	2.86	4.04	4.81	1.46	3.10	5.25	2.43	3.72
17	4.89	1.51	3.21	5.59	2.73	4.31	4.15	0.93	2.41	5.28	2.49	3.73
18	4.87	1.40	3.15	5.28	2.54	3.91	3.84	0.53	2.21	5.46	2.55	3.78
19	5.14	1.73	3.41	5.34	2.54	3.95	3.97	0.74	2.31	5.18	1.94	3.40
20	4.97	1.80	3.47	5.02	2.02	3.50	4.09	1.03	2.56	4.69	1.52	3.03
21	5.53	1.81	3.85	4.86	2.03	3.43	4.60	1.33	2.83	4.86	2.03	3.37
22	5.83	2.64	4.00	4.97	2.15	3.52	4.65	1.74	3.12	4.87	2.10	3.46
23	5.11	2.45	3.57	5.25	2.38	3.72	4.27	1.03	2.70	4.67	2.09	3.39
24	4.65	2.08	3.11	5.11	2.27	3.52	3.64	0.67	2.21	4.36	1.79	3.15
25	4.14	1.85	2.77	4.43	1.71	2.95	3.58	1.07	2.28	4.76	1.64	3.05
26	4.04	1.55	2.61	4.01	1.10	2.62	3.43	1.19	2.40	5.42	3.16	4.15
27	3.79	1.50	2.50	4.22	1.59	2.78	3.89	1.46	2.55	5.59	3.31	4.21
28	4.59	2.33	3.25	3.23	1.27	2.26	4.10	1.33	2.71	5.78	2.70	4.13
29	---	---	---	3.12	1.20	2.22	4.10	0.98	2.67	5.57	2.44	3.70
30	---	---	---	3.45	1.35	2.46	4.15	1.44	2.78	5.58	1.80	3.41
31	---	---	---	3.91	1.62	2.68	---	---	---	5.30	2.38	3.77
MONTH	5.83	0.69	3.14	7.97	1.10	3.78	5.41	0.53	2.78	7.29	1.52	3.83

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.49	2.98	4.85	5.28	1.36	3.20	4.24	0.90	2.72	4.34	1.20	2.79
2	6.92	3.52	5.08	4.88	0.91	2.87	4.69	1.18	3.17	4.00	0.94	2.48
3	6.90	3.53	5.06	4.65	0.83	2.73	4.50	1.35	3.11	---	---	---
4	7.06	3.26	5.01	4.21	0.66	2.52	4.58	1.28	2.91	---	---	---
5	5.93	2.40	4.14	3.71	0.27	2.18	4.59	1.49	2.95	---	---	---
6	5.43	2.56	3.98	3.20	.00	1.80	3.89	0.83	2.34	---	---	---
7	5.09	2.50	3.93	3.40	.00	1.60	3.63	0.57	1.75	---	---	---
8	4.89	2.31	3.62	3.40	0.20	1.70	3.63	0.61	1.76	---	---	---
9	4.84	2.17	3.40	3.65	0.20	1.70	3.66	0.45	1.78	---	---	---
10	4.85	2.13	3.23	3.20	.00	1.30	3.76	0.44	1.95	---	---	---
11	4.86	1.58	2.89	3.20	0.30	1.60	3.94	0.68	2.22	---	---	---
12	4.65	1.45	2.71	3.70	0.55	2.00	4.15	0.79	2.57	---	---	---
13	4.59	1.11	2.90	3.85	0.80	2.30	4.58	0.95	2.74	---	---	---
14	4.98	1.98	3.33	3.95	0.55	---	4.27	0.75	2.57	---	---	---
15	4.91	1.84	3.24	---	---	---	4.26	0.81	2.74	---	---	---
16	5.04	2.05	3.49	---	---	---	4.59	1.52	3.20	---	---	---
17	5.37	2.11	3.75	---	---	---	4.92	1.73	3.43	---	---	---
18	5.29	1.90	3.50	---	---	---	4.73	1.60	3.31	---	---	---
19	4.58	1.03	2.82	---	---	---	4.76	1.20	2.90	---	---	---
20	4.18	0.68	2.59	---	---	---	4.32	1.08	2.77	---	---	---
21	3.77	0.30	2.34	---	---	---	3.94	0.69	2.22	---	---	---
22	3.62	0.65	2.32	---	---	---	4.42	0.63	2.11	---	---	---
23	3.77	0.77	2.29	---	---	---	4.84	1.23	2.57	4.40	1.39	3.08
24	3.95	0.58	2.10	---	---	---	4.86	1.46	2.84	5.04	2.09	3.55
25	3.99	0.62	2.13	---	---	---	4.74	1.33	2.90	4.92	1.85	3.52
26	4.11	0.43	2.05	4.19	0.80	2.16	5.02	1.42	3.08	5.13	2.10	3.69
27	4.14	0.79	2.14	4.31	0.69	2.31	4.66	1.01	2.86	5.27	2.27	3.77
28	4.49	0.93	2.51	4.52	0.86	2.56	4.66	1.20	3.00	5.54	2.32	3.85
29	4.76	1.19	2.75	4.64	1.03	2.80	4.60	1.32	3.06	5.43	2.33	3.86
30	5.06	1.63	3.27	4.77	0.95	2.82	4.85	1.66	3.38	5.19	2.39	3.66
31	---	---	---	4.72	0.92	2.79	4.68	1.35	3.02	---	---	---
MONTH	7.06	0.30	3.24	5.28	.00	2.26	5.02	0.44	2.70	5.54	0.94	3.42
YEAR	7.97	.00	3.28									

14222910 COLUMBIA RIVER AT KALAMA, WA

LOCATION.--Lat 46°01'13", long 122°51'30", in NW¼ sec.7, T.6 N., R.1 W., Cowlitz County, Hydrologic Unit 17080003, temperature recorder on right bank at dock of Dow Chemical Company, 1.0 mi (1.6 km) northwest of Kalama, and at mile 74.3 (119.5 km).

DRAINAGE AREA.--254,000 mi^2 (657,900 km^2), approximately.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: September 1968 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 23.5°C Aug. 13-16, 18, 1977; minimum, 0.0°C Jan. 10-14, 1974.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 23.5°C Aug. 13-16, 18; minimum, 2.0°C Jan. 13, 25, 27, Feb. 1, 2, 7, 9, 10.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.0	18.0	13.5	13.5	8.5	7.5	5.5	4.0	3.0	2.0	5.5	5.0
2	18.5	18.0	13.5	13.0	8.0	7.5	5.0	4.5	3.5	2.0	5.5	5.5
3	18.5	17.5	13.5	13.0	8.0	7.5	4.5	4.0	3.5	2.5	6.0	5.0
4	18.0	17.5	13.5	13.0	8.0	7.5	4.5	4.0	3.0	2.5	6.0	5.0
5	17.5	17.0	13.5	12.5	8.0	7.5	4.5	4.0	3.0	2.5	6.0	5.5
6	17.5	17.0	13.0	12.5	8.0	7.5	4.5	4.0	3.0	2.5	6.0	5.5
7	17.5	17.0	13.0	12.0	7.5	7.0	5.0	3.5	3.5	2.0	6.0	5.5
8	17.5	17.0	12.5	12.0	7.5	6.5	4.0	3.5	3.5	2.5	6.0	5.5
9	17.5	17.0	13.0	12.0	7.5	7.0	4.0	3.5	3.5	2.0	6.0	5.5
10	17.5	17.0	12.5	12.0	7.5	7.0	3.5	3.0	3.0	2.0	6.0	5.5
11	17.5	17.0	12.5	12.0	7.5	7.0	3.0	2.5	4.0	3.0	6.0	5.5
12	17.5	17.0	12.5	11.5	7.5	6.5	3.0	2.5	3.5	2.5	6.5	5.5
13	17.5	17.0	12.0	11.5	7.0	6.5	3.0	2.0	4.5	3.0	6.0	5.5
14	17.0	16.5	12.0	11.0	7.0	6.0	3.5	2.5	4.5	3.0	6.0	5.5
15	17.0	16.5	11.5	11.0	6.5	6.0	3.5	2.5	4.5	3.5	6.0	5.0
16	16.5	16.0	11.5	10.5	6.5	6.0	3.5	3.0	4.5	3.5	6.0	5.5
17	16.5	16.0	11.5	11.0	6.5	6.0	3.5	3.0	4.5	4.0	6.0	5.5
18	16.5	15.5	12.0	11.5	6.5	5.5	3.0	3.0	5.0	3.5	6.5	5.5
19	16.0	14.5	12.0	11.0	6.5	5.5	3.5	3.0	5.0	3.5	6.5	6.0
20	15.0	14.0	11.5	10.5	6.5	6.0	4.0	3.0	5.0	4.0	6.5	6.0
21	14.5	14.0	11.5	11.0	6.5	5.5	4.0	3.0	5.0	4.5	6.5	5.5
22	14.5	14.0	11.0	10.0	6.0	5.5	4.5	3.0	5.5	4.5	6.5	6.0
23	15.0	14.5	10.5	10.0	5.5	5.0	4.0	2.5	5.5	4.5	7.0	6.5
24	15.0	14.5	11.0	10.0	6.0	5.0	4.0	2.5	5.5	4.5	7.5	6.5
25	14.5	14.0	10.0	9.5	5.5	5.0	3.5	2.0	5.0	4.5	7.5	6.5
26	15.0	14.0	10.0	9.5	5.5	5.0	3.5	2.5	5.5	4.0	7.5	6.5
27	15.0	14.0	10.0	9.0	5.5	5.0	3.5	2.0	4.5	4.5	7.5	7.0
28	14.5	14.0	9.5	9.0	6.0	5.0	3.0	2.5	5.0	4.5	7.0	7.0
29	14.0	13.5	9.0	8.0	6.0	5.0	3.5	2.5	---	---	7.0	6.5
30	14.0	13.5	9.0	8.0	6.0	5.0	3.5	2.5	---	---	7.5	6.5
31	14.0	13.5	---	---	5.5	4.5	3.0	2.5	---	---	7.5	7.0
MONTH	18.5	13.5	13.5	8.0	8.5	4.5	5.5	2.0	5.5	2.0	7.5	5.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	7.0	13.5	13.0	14.0	13.5	19.5	19.0	21.5	21.0	20.5	19.5
2	7.5	7.0	13.5	12.5	14.5	14.0	20.0	19.0	21.5	21.5	20.5	20.0
3	8.0	6.5	13.0	12.0	14.5	14.0	20.0	19.0	22.0	21.5	20.5	20.0
4	8.0	7.0	13.0	12.0	14.0	14.0	20.0	19.0	22.0	21.5	20.5	20.0
5	8.5	7.5	12.5	11.5	14.5	14.0	19.5	19.0	22.0	21.5	20.5	19.5
6	9.0	8.0	12.5	11.5	15.0	14.5	19.0	18.5	22.5	22.0	20.5	20.0
7	9.5	8.5	12.5	12.0	16.0	15.5	19.5	18.5	22.5	22.0	20.5	20.0
8	10.0	9.0	12.5	12.0	16.0	15.5	19.5	19.0	22.5	22.5	20.5	20.0
9	10.5	9.5	13.0	12.0	16.0	15.5	20.0	19.5	22.5	22.5	20.5	19.5
10	10.5	9.5	13.0	12.5	16.5	15.5	20.0	19.0	22.5	22.0	19.5	19.0
11	10.0	9.0	13.0	12.5	16.5	16.0	19.5	19.0	23.0	22.5	19.5	18.5
12	10.5	9.5	13.0	12.0	17.0	16.0	20.0	19.0	23.0	22.5	19.5	19.0
13	10.5	9.5	13.5	12.5	17.0	16.0	19.5	19.0	23.5	22.5	20.0	19.5
14	10.5	9.5	13.5	13.0	16.5	16.0	19.5	19.0	23.5	23.0	20.0	19.5
15	10.5	9.5	13.5	13.0	17.0	16.0	19.5	19.0	23.5	22.5	20.0	19.0
16	10.0	9.5	13.0	12.5	17.0	16.5	20.0	19.5	23.5	23.0	19.5	19.0
17	10.5	9.5	12.5	12.5	17.5	17.0	20.0	19.5	23.0	23.0	19.0	18.5
18	10.5	9.5	13.0	12.0	18.0	17.5	20.0	19.5	23.5	23.0	19.0	18.5
19	10.5	9.5	13.0	12.5	18.5	18.0	20.0	19.5	23.0	22.5	18.5	18.0
20	11.0	9.5	13.5	13.0	18.5	18.0	20.0	19.0	23.0	22.5	18.5	18.0
21	10.5	10.0	13.5	13.0	18.5	18.0	20.5	19.0	23.0	22.0	18.5	18.0
22	10.5	10.0	14.0	13.0	18.5	18.0	20.5	20.0	22.5	21.5	18.0	17.5
23	11.0	10.0	13.5	13.0	18.5	18.0	20.5	20.0	22.0	21.5	18.0	17.5
24	11.5	10.5	13.5	13.5	19.0	18.5	21.0	20.5	21.5	21.5	18.0	17.5
25	12.0	11.0	14.0	13.0	19.5	19.0	21.0	20.5	21.5	21.0	18.0	17.0
26	12.0	11.5	14.0	13.5	19.5	19.0	21.0	20.5	21.5	20.5	18.0	17.0
27	12.5	11.5	14.0	13.5	19.5	19.0	21.0	20.5	21.0	20.5	17.0	16.5
28	13.0	12.0	13.5	13.0	20.0	19.0	21.5	20.5	21.0	20.0	17.0	16.5
29	13.5	12.5	14.0	13.5	20.0	19.0	21.5	21.0	21.0	20.5	17.0	16.5
30	13.5	12.5	14.5	13.5	20.0	19.0	21.5	21.0	20.5	19.5	17.0	16.5
31	---	---	14.0	13.5	---	---	21.0	20.5	20.5	19.5	---	---
MONTH	13.5	6.5	14.5	11.5	20.0	13.5	21.5	18.5	23.5	19.5	20.5	16.5

14223600 KALAMA RIVER ABOVE SPENCER CREEK, NEAR KALAMA, WA

LOCATION.--Lat 46°02'51", long 122°50'11", in SE¼NW¼ sec.32, T. 7 N., R.1 W., Cowlitz County, Hydrologic Unit 17080003, on right bank at Modrow Road Bridge, 2.1 mi (3.4 km) north of Kalama city limits, 0.6 mi (1.0 km) upstream from Spencer Creek, and at mile 2.8 (4.5 km).

DRAINAGE AREA.--202 mi^2 (325 km^2), approximately.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May to November 1970, July 1971 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 21.5°C Aug. 12, 1977; minimum, 0.0°C Dec. 7-13, 1972, Jan. 9, 1973, Jan. 6-10, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.5°C Aug. 12; minimum, 0.0°C Jan. 6-10.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.0	12.0	9.5	9.0	2.5	2.0	3.0	2.0	4.5	4.0	5.5	4.5
2	12.5	11.0	9.5	8.5	2.5	2.0	3.5	3.0	5.5	4.5	5.0	5.0
3	11.0	10.5	9.0	8.5	3.5	2.5	3.0	2.5	4.5	3.0	5.5	5.0
4	11.0	9.5	9.0	7.5	4.0	3.5	3.0	2.0	4.0	3.5	6.0	5.0
5	11.0	10.0	8.5	7.5	4.5	4.0	2.5	1.0	4.5	3.5	6.0	5.0
6	11.5	10.0	8.5	8.0	5.0	4.5	1.0	0.0	5.5	4.5	6.5	5.0
7	11.5	10.5	9.0	7.5	6.0	5.5	0.5	0.0	5.0	4.0	5.5	5.0
8	12.0	10.5	9.5	8.5	6.5	6.0	0.0	0.0	5.0	4.5	5.5	5.0
9	11.5	10.0	9.0	9.0	6.0	5.5	0.0	0.0	5.5	4.5	5.5	5.0
10	11.5	11.0	9.0	7.5	6.5	5.0	1.0	0.0	6.5	5.5	6.0	5.0
11	12.0	11.0	8.5	7.5	5.0	5.0	2.5	1.5	6.5	6.0	6.5	5.0
12	11.5	11.0	8.0	7.0	5.0	4.0	4.0	3.0	7.5	6.0	6.5	5.0
13	10.5	9.5	7.0	5.5	5.0	4.0	4.5	3.5	7.5	6.0	5.5	5.0
14	10.5	9.5	7.5	5.5	6.0	4.5	5.0	4.0	6.5	5.0	5.5	4.5
15	10.5	9.0	8.5	7.5	7.0	6.0	5.5	5.0	6.0	4.5	6.0	4.5
16	9.5	8.5	9.5	8.5	7.0	6.5	6.0	5.0	7.0	5.0	5.5	5.5
17	9.0	7.5	9.5	9.0	6.5	5.0	6.5	5.5	7.5	6.0	6.0	5.0
18	8.0	7.0	9.0	7.0	6.0	5.5	7.0	6.0	7.0	6.0	6.5	5.5
19	7.5	6.0	7.0	5.5	5.5	4.5	7.0	5.5	7.0	5.0	7.0	5.5
20	7.5	6.0	7.0	5.0	4.5	3.5	6.0	5.0	7.0	6.5	6.0	5.5
21	7.5	5.5	7.0	5.5	4.0	3.5	6.0	5.0	7.0	6.0	7.5	5.5
22	8.0	7.0	6.5	5.0	4.5	3.5	5.0	4.0	6.5	5.0	8.0	7.0
23	8.5	7.5	6.0	5.0	5.0	4.5	4.0	3.0	5.5	4.5	8.0	7.0
24	8.5	7.5	6.0	4.5	5.0	4.5	3.0	2.0	5.5	4.5	7.5	5.5
25	9.0	8.0	6.5	5.5	5.0	4.5	2.5	2.0	5.0	4.5	6.5	6.0
26	9.5	8.5	6.0	4.5	6.5	5.5	2.5	1.5	5.0	4.5	6.5	6.0
27	9.0	8.5	4.0	2.5	6.5	6.0	2.0	1.0	6.5	5.0	6.5	5.0
28	8.5	7.5	2.5	1.5	6.0	5.0	2.0	1.5	6.5	5.0	6.5	5.0
29	9.0	7.5	2.0	1.5	5.5	5.0	2.0	1.5	---	---	6.5	5.5
30	7.5	7.0	2.5	2.0	5.0	4.0	2.5	1.5	---	---	7.5	5.5
31	9.0	7.5	---	---	4.0	3.0	4.0	2.5	---	---	8.0	6.0
MONTH	13.0	5.5	9.5	1.5	7.0	2.0	7.0	0.0	7.5	3.0	8.0	4.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	6.0	11.0	10.0	10.5	9.0	17.0	15.0	20.0	17.5	15.5	11.5
2	7.5	6.0	10.0	9.5	10.0	8.0	16.0	14.0	20.5	18.0	14.0	12.5
3	8.0	6.0	9.5	8.5	10.0	9.0	15.0	13.0	20.5	18.0	13.5	12.5
4	9.0	7.5	8.0	7.0	10.0	9.0	13.5	11.0	20.0	18.0	14.0	13.0
5	9.5	8.0	8.0	6.5	13.0	9.5	13.0	11.0	21.0	18.0	14.5	13.0
6	10.0	8.0	9.0	7.0	13.0	12.5	15.5	12.0	20.5	18.5	14.5	12.5
7	10.0	7.5	9.5	8.0	14.0	12.5	17.0	13.0	20.5	18.5	14.5	11.5
8	10.0	7.5	10.0	8.0	13.5	11.5	16.5	14.5	20.5	18.0	14.0	11.0
9	7.5	6.0	11.0	9.0	13.0	11.0	16.0	14.5	21.0	18.0	14.0	11.0
10	7.0	6.0	10.5	8.5	13.5	11.0	15.5	13.0	20.5	17.5	14.0	11.0
11	9.0	7.0	9.5	7.5	12.5	11.0	15.0	14.0	21.0	17.5	14.0	12.0
12	8.5	7.5	10.0	7.5	14.0	10.5	15.0	13.5	21.5	18.0	14.0	12.5
13	9.0	7.5	10.5	9.0	14.0	12.0	14.0	12.5	21.0	18.5	14.5	12.5
14	7.5	6.0	10.0	9.0	15.0	12.5	16.0	12.5	20.0	18.0	14.0	13.5
15	8.0	7.5	10.0	8.5	15.0	12.5	17.0	15.0	20.5	17.0	13.5	12.5
16	8.0	7.0	9.0	8.0	16.5	13.0	17.5	16.0	20.5	17.5	13.0	12.0
17	8.0	6.0	9.0	8.0	17.5	13.0	16.5	15.0	21.0	18.0	12.5	11.5
18	8.0	6.0	9.0	8.0	16.0	14.0	15.0	14.0	19.0	17.5	12.0	11.5
19	8.5	6.0	10.5	8.0	15.5	12.5	16.5	13.0	18.0	16.5	12.5	11.5
20	9.0	6.5	10.5	9.5	14.5	13.0	16.5	14.5	17.0	16.5	12.5	11.5
21	9.5	7.0	11.5	9.5	13.5	12.0	17.5	15.0	16.5	15.5	12.0	11.0
22	11.0	7.5	11.5	9.5	16.0	12.5	18.5	15.5	17.0	15.0	12.0	10.5
23	11.0	9.5	10.5	9.5	17.0	13.5	18.5	16.0	15.5	14.0	11.0	10.0
24	11.0	9.5	10.0	9.0	17.5	13.5	19.0	16.5	14.5	13.0	11.0	10.5
25	11.0	9.5	11.0	8.5	18.0	14.5	18.0	16.0	14.0	13.5	10.5	10.0
26	10.0	9.0	10.5	9.5	17.0	14.5	17.5	15.5	14.0	13.0	11.0	10.0
27	10.5	8.0	9.5	8.5	16.5	14.0	18.5	15.5	13.5	12.5	10.5	10.0
28	11.5	9.0	9.0	8.0	17.5	14.0	17.5	16.0	14.5	13.5	11.0	10.5
29	11.5	9.5	9.0	7.5	17.5	14.0	18.0	15.5	13.5	12.5	11.0	10.5
30	12.5	10.0	9.0	8.0	18.0	14.0	18.5	15.5	13.5	12.0	11.0	10.0
31	---	---	9.5	8.0	---	---	19.5	16.5	14.5	12.5	---	---
MONTH	12.5	6.0	11.5	6.5	18.0	8.0	19.5	11.0	21.5	12.0	15.5	10.0

14245295 COLUMBIA RIVER AT RAINIER, OR

LOCATION.--Lat 46°06'02", long 122°57'47", in SE¼SW¼ sec.8, T.7 N., R.2 W., Columbia County, Hydrologic Unit 17080003, on left bank at Rainier, 1.2 mi (1.9 km) downstream from Nice Creek, 500 ft (152 m) upstream from Interstate bridge, and at mile 66.1 (106.4 km).

DRAINAGE AREA.--256,700 mi^2 (664,900 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1971 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is at Columbia River datum, 0.34 ft (0.104 m) below mean sea level.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 16.52 ft (5.035 m) Jan. 19, 1974; minimum, 0.46 ft (0.140 m) July 6, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 9.26 ft (2.822 m) Mar. 9; minimum, 0.46 ft (0.140 m) July 6.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.12	1.99	3.85	5.88	2.21	3.82	5.91	2.46	3.83	---	---	---
2	5.80	2.13	3.86	5.87	2.12	3.71	6.28	2.31	3.94	---	---	---
3	5.61	1.66	3.50	5.84	2.02	3.66	6.43	2.25	4.00	---	---	---
4	5.69	1.77	3.63	6.33	2.25	3.94	6.20	1.49	3.73	---	---	---
5	6.36	2.44	4.26	6.45	2.13	4.11	5.80	1.28	3.33	---	---	---
6	6.41	2.70	4.46	6.20	1.93	3.89	6.06	1.60	3.56	---	---	---
7	6.50	2.51	4.34	6.38	1.92	4.05	6.56	1.69	3.99	---	---	---
8	6.66	2.47	4.41	6.38	1.98	3.95	7.16	1.89	4.55	---	---	---
9	6.79	2.55	4.38	6.47	1.79	3.98	6.51	2.30	4.29	---	---	---
10	6.46	2.22	4.12	6.34	2.03	4.06	5.93	1.82	3.75	---	---	---
11	6.30	1.97	3.99	6.20	2.02	4.00	5.74	1.46	3.62	---	---	---
12	5.97	2.08	3.77	5.77	1.93	3.79	---	---	---	---	---	---
13	5.99	2.04	3.83	5.56	1.84	3.79	---	---	---	---	---	---
14	5.76	2.18	3.90	5.45	1.94	3.86	---	---	---	---	---	---
15	5.58	2.38	3.93	5.54	1.93	3.69	---	---	---	---	---	---
16	4.97	2.27	3.66	5.99	1.86	3.77	---	---	---	---	---	---
17	4.58	1.48	3.00	6.51	1.99	3.88	---	---	---	---	---	---
18	5.14	1.21	3.03	6.49	2.06	3.87	---	---	---	---	---	---
19	5.71	2.04	3.76	6.79	2.13	4.02	---	---	---	7.46	2.39	---
20	6.66	2.53	4.37	6.97	2.14	4.21	---	---	---	7.54	2.39	4.78
21	7.07	2.58	4.59	7.51	2.42	4.59	---	---	---	7.23	2.82	4.91
22	7.59	2.83	4.95	7.62	2.41	4.75	---	---	---	6.65	2.71	4.51
23	7.70	2.80	4.99	7.63	2.55	4.76	---	---	---	6.14	2.17	3.97
24	7.75	2.50	4.67	7.54	2.55	4.86	---	---	---	5.90	1.82	3.88
25	7.48	2.42	4.76	6.96	2.71	4.69	---	---	---	6.10	2.37	4.19
26	7.17	2.59	4.57	5.91	2.19	3.91	---	---	---	6.45	3.09	4.37
27	6.93	2.35	4.39	5.20	1.42	3.34	---	---	---	5.97	2.68	3.92
28	6.23	2.26	4.15	5.34	1.71	3.31	---	---	---	5.71	2.46	3.76
29	5.72	2.28	4.04	5.14	1.28	3.11	---	---	---	5.47	2.07	3.52
30	5.34	2.16	3.69	5.73	2.14	3.64	---	---	---	5.87	2.07	3.63
31	6.11	1.86	3.95	---	---	---	---	---	---	6.45	2.76	4.13
MONTH	7.75	1.21	4.09	7.63	1.28	3.96	7.16	1.28	3.87	7.54	1.82	4.13

14245295 COLUMBIA RIVER AT RAINIER, OR--Continued

GAGE HEIGHT. IN FEET. WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.68	2.45	4.46	6.00	2.46	4.19	5.66	1.96	3.73	6.20	1.91	3.85
2	6.71	2.59	4.37	6.29	2.51	4.19	5.88	1.84	3.69	6.73	2.24	4.39
3	6.88	2.49	4.46	6.42	2.64	4.57	6.07	1.69	3.67	7.81	3.23	5.44
4	6.99	2.28	4.52	6.55	2.34	4.39	6.15	1.48	3.69	8.51	3.71	5.84
5	6.53	2.06	4.13	6.61	2.36	4.22	6.64	1.61	3.91	8.57	3.68	5.81
6	6.26	1.90	3.95	7.14	2.54	4.67	6.77	1.78	4.01	8.23	3.34	5.48
7	5.90	1.64	3.70	8.08	2.92	5.52	6.90	1.95	4.21	7.65	2.94	5.04
8	6.77	2.07	4.39	8.56	4.10	6.20	6.95	2.04	4.20	6.94	2.55	4.59
9	6.49	2.17	3.98	9.26	4.50	6.54	6.43	1.66	3.77	6.21	2.42	4.32
10	6.88	2.13	4.33	7.86	3.78	5.42	5.47	1.05	3.19	5.91	2.24	4.09
11	6.26	1.90	3.72	7.05	3.04	4.86	5.10	1.15	3.03	5.97	2.08	3.76
12	6.05	1.48	3.46	7.32	3.22	4.93	5.15	1.07	2.91	5.95	2.13	3.79
13	5.49	1.04	3.02	6.73	2.92	4.57	5.18	1.41	3.21	6.23	2.44	4.03
14	5.67	1.36	3.16	6.47	2.58	4.35	5.20	1.65	3.29	6.48	2.42	4.09
15	6.33	1.72	3.70	6.55	2.55	4.41	5.82	1.95	3.62	6.55	2.36	4.13
16	6.72	1.94	4.09	6.56	2.78	4.42	6.10	1.74	3.68	6.59	2.35	4.24
17	6.47	1.55	3.90	6.81	2.67	4.68	5.59	1.16	3.07	6.61	2.35	4.21
18	6.32	1.75	3.81	6.58	2.49	4.41	5.39	0.82	2.93	6.59	2.33	4.24
19	6.63	1.77	4.06	6.62	2.54	4.47	5.35	0.88	2.98	6.49	1.94	3.50
20	6.61	1.95	4.28	6.41	2.16	4.08	5.45	1.03	3.21	6.18	1.67	3.77
21	7.04	2.01	4.70	6.30	2.14	4.01	5.98	1.50	3.53	6.26	2.01	4.02
22	7.31	2.98	4.72	6.37	2.21	4.14	6.00	1.83	3.78	6.17	2.06	4.07
23	6.44	2.53	4.17	6.64	2.50	4.38	5.73	1.37	3.43	5.93	2.11	4.00
24	5.97	2.29	3.77	6.50	2.32	4.15	5.09	1.00	3.02	5.57	1.91	3.80
25	5.50	2.16	3.49	5.77	1.89	3.59	4.88	1.41	3.08	5.87	1.94	3.75
26	5.27	1.78	3.32	5.41	1.74	3.44	4.62	1.42	3.13	6.59	3.08	4.61
27	5.15	1.80	3.29	5.58	2.16	3.58	5.11	1.57	3.17	6.97	3.10	4.65
28	5.91	2.52	4.05	4.51	1.51	3.00	5.33	1.52	3.32	6.93	2.78	4.58
29	---	---	---	4.29	1.25	2.83	5.39	1.47	3.32	6.89	2.58	4.23
30	---	---	---	4.53	1.39	2.96	5.55	1.68	3.42	7.02	2.20	4.07
31	---	---	---	5.21	1.72	3.27	---	---	---	6.87	2.24	4.39
MONTH	7.31	1.04	3.96	9.26	1.25	4.33	6.95	0.82	3.44	8.57	1.67	4.34

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.80	3.28	5.28	6.90	1.47	3.90	5.93	1.05	3.48	5.93	1.60	3.60
2	8.26	3.17	5.49	6.67	1.19	3.71	6.15	1.65	3.82	5.65	1.47	3.42
3	8.30	3.25	5.51	6.39	1.14	3.60	6.00	1.64	3.81	5.58	1.68	3.37
4	8.43	3.27	5.53	5.99	1.01	3.42	5.97	1.59	3.65	5.43	1.98	3.55
5	7.39	2.32	4.73	5.46	0.71	3.09	5.92	1.85	3.65	4.83	1.57	2.93
6	6.83	2.41	4.58	4.71	0.46	2.69	5.16	1.51	3.21	4.79	1.21	2.73
7	6.28	2.36	4.39	4.76	0.60	2.50	4.92	1.33	2.69	4.86	1.39	2.89
8	6.09	2.24	4.09	4.90	0.61	2.53	4.96	1.24	2.69	4.73	1.25	2.74
9	6.04	2.12	3.77	4.61	0.78	2.54	4.93	1.00	2.64	4.75	0.83	2.62
10	6.08	2.30	3.71	4.48	0.73	2.21	5.07	0.92	2.76	5.09	1.03	2.92
11	6.10	1.99	3.52	4.78	0.76	2.52	5.30	1.04	2.97	5.37	1.05	3.08
12	5.85	1.72	3.41	5.14	0.99	2.80	5.68	1.08	3.32	5.53	0.88	3.18
13	5.97	1.59	3.54	5.34	1.08	3.01	6.18	1.34	3.53	6.04	1.52	3.70
14	6.29	1.97	3.85	5.55	0.83	2.97	5.98	1.14	3.45	6.66	2.03	4.22
15	6.26	1.67	3.81	5.58	1.05	3.15	5.96	1.16	3.57	6.75	2.22	4.31
16	6.34	1.93	4.00	5.77	0.96	3.16	6.15	1.64	3.90	6.95	2.33	4.40
17	6.56	2.06	4.26	5.58	0.85	3.07	6.34	1.94	4.13	6.84	2.36	4.37
18	6.65	1.95	4.12	5.55	0.90	3.28	6.21	1.92	4.05	6.44	2.09	4.04
19	6.10	1.25	3.58	5.94	1.49	3.66	6.08	1.49	3.69	6.83	2.14	4.32
20	5.77	1.15	3.43	5.79	1.43	3.61	5.84	1.55	3.58	6.34	2.46	4.23
21	5.43	0.86	3.18	5.51	1.19	3.41	5.47	1.30	3.13	5.86	1.84	3.63
22	5.09	0.89	3.09	5.20	0.91	3.04	5.76	1.16	3.04	5.94	1.63	3.48
23	5.13	1.04	3.01	5.05	0.55	2.74	6.25	1.61	3.43	5.99	1.75	3.88
24	5.12	0.90	2.85	5.39	1.02	2.73	6.27	1.83	3.68	6.60	2.31	4.25
25	5.39	1.00	2.88	4.75	1.22	2.58	6.35	1.74	3.73	6.55	2.19	4.27
26	5.41	0.98	2.83	5.62	1.01	2.96	6.67	1.75	3.87	6.69	2.32	4.41
27	5.47	1.15	2.90	5.78	1.00	3.07	6.44	1.40	3.70	6.80	2.44	4.46
28	5.85	1.39	3.17	6.11	1.12	3.32	6.44	1.59	3.92	7.09	2.52	4.59
29	6.12	1.26	3.37	6.27	1.22	3.53	6.35	1.55	3.95	6.97	2.56	4.57
30	6.42	1.56	3.78	6.37	1.23	3.60	6.47	2.11	4.17	6.67	2.56	4.34
31	---	---	---	6.29	1.22	3.59	6.18	1.65	3.81	---	---	---
MONTH	8.43	0.86	3.85	6.90	0.46	3.09	6.67	0.92	3.51	7.09	0.83	3.75
YEAR	9.26	0.46	3.84									

14245295 COLUMBIA RIVER AT RAINIER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1971 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 23.5°C Aug. 10, 11, 1977; minimum, 0.0°C Jan. 9-13, 1974.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 23.5°C Aug. 10, 11; minimum recorded, 2.5°C Jan. 11, 12.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	18.0	13.5	13.0	8.0	7.5	5.5	5.0			---	---
2	18.5	18.0	13.0	13.0	7.5	7.5	5.0	4.5			---	---
3	18.5	17.5	13.0	12.5	7.5	7.0	4.5	4.5			---	---
4	18.5	17.5	13.0	12.5	7.5	7.0	4.5	4.0			---	---
5	17.5	17.5	12.5	12.5	7.5	7.5	4.0	4.0			---	---
6	18.0	17.5	12.5	12.0	7.5	7.5	4.5	4.0			---	---
7	18.0	17.0	12.0	12.0	7.5	7.5	4.0	3.5			---	---
8	18.0	17.5	12.5	12.0	7.5	7.0	4.0	3.5			---	---
9	17.5	17.0	12.0	12.0	7.5	7.0	3.5	3.0			---	---
10	17.5	17.0	12.5	12.0	7.0	7.0	3.0	3.0			---	---
11	17.5	17.0	12.0	12.0	7.0	7.0	3.0	2.5			---	---
12	17.5	17.0	12.0	11.5	7.0	6.5	3.0	2.5			---	---
13	17.5	17.0	11.5	11.5	6.5	6.5	3.0	3.0			---	---
14	17.0	16.5	11.5	11.5	6.5	6.5	3.5	3.0			---	---
15	17.0	16.5	11.5	11.0	6.5	6.5	4.0	3.5			---	---
16	16.5	16.0	11.5	11.0	6.5	6.5	4.0	3.5			---	---
17	16.5	15.5	11.5	11.0	6.5	6.0	4.0	4.0			---	---
18	16.0	15.5	11.5	11.0	6.5	6.0	4.0	4.0			6.0	6.0
19	15.5	15.0	11.5	11.0	6.0	6.0	4.0	4.0			6.0	6.0
20	15.0	14.0	11.0	11.0	6.0	6.0	4.0	4.0			6.0	6.0
21	14.5	14.0	11.0	10.5	6.0	6.0	4.5	4.0			6.5	6.0
22	14.5	14.0	11.0	10.5	6.0	5.5	4.5	4.0			6.5	6.0
23	14.0	14.0	10.5	10.0	5.5	5.5	---	---			7.0	6.0
24	14.0	14.0	10.0	10.0	5.5	5.5	---	---			7.0	6.5
25	14.0	14.0	10.0	9.5	5.5	5.5	---	---			7.0	6.5
26	14.0	14.0	9.5	9.5	6.0	5.5	---	---			7.0	6.5
27	14.0	13.5	9.5	9.0	6.0	5.5	---	---			7.0	6.5
28	13.5	13.5	9.0	8.5	6.0	5.5	---	---			7.5	6.5
29	13.5	13.5	8.5	8.0	6.0	5.5	---	---			7.5	6.5
30	13.0	13.0	8.0	8.0	6.0	5.5	---	---			8.0	6.5
31	13.0	13.0	---	---	5.5	5.5	---	---			7.0	7.0
MONTH	18.5	13.0	13.5	8.0	8.0	5.5	5.5	2.5			8.0	6.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	7.0	13.0	12.5	14.0	13.5	19.0	18.5	21.0	20.5	19.5	19.0
2	7.5	7.0	13.0	12.5	14.0	13.5	19.0	18.5	21.0	20.5	19.5	19.0
3	7.5	7.0	12.5	12.0	14.0	13.5	18.5	18.5	21.5	21.0	19.5	19.0
4	8.0	7.0	12.0	12.0	14.0	13.5	19.0	18.0	21.5	21.0	19.5	19.0
5	8.5	7.5	12.0	12.0	14.5	13.5	18.5	18.0	21.5	21.0	19.5	19.0
6	8.5	8.0	12.0	11.5	15.5	14.0	19.5	18.0	22.0	21.0	19.5	18.5
7	9.5	8.5	12.5	11.5	16.0	15.0	19.0	18.0	22.0	21.0	19.5	19.0
8	9.5	9.0	13.0	12.0	16.0	15.0	19.0	18.0	22.5	21.0	20.0	18.5
9	9.5	9.0	13.0	12.0	16.5	15.0	19.0	18.0	23.0	21.5	19.5	18.5
10	9.5	9.0	12.5	12.5	16.0	15.0	20.0	18.5	23.5	21.5	19.0	18.0
11	10.0	9.0	13.0	12.0	16.0	15.5	19.0	18.5	23.5	21.5	18.5	18.0
12	10.0	9.0	13.0	12.0	16.5	15.5	19.0	18.5	23.0	22.0	19.0	18.0
13	10.0	9.5	12.5	12.0	16.5	16.0	19.0	18.0	22.5	22.0	19.0	18.0
14	10.0	9.0	13.0	12.0	16.5	15.5	19.0	18.0	23.0	22.0	19.0	18.5
15	10.0	9.5	13.0	12.5	16.5	15.5	19.0	18.0	22.5	22.0	19.0	18.5
16	9.5	9.0	12.5	12.0	17.0	16.0	19.0	18.5	23.0	22.0	18.5	18.0
17	9.5	9.0	12.5	12.0	17.0	16.5	19.0	18.5	23.0	22.5	18.0	18.0
18	10.0	9.0	12.5	12.0	17.5	17.0	19.0	18.5	22.5	22.0	18.0	18.0
19	10.0	9.0	13.0	12.0	18.0	17.0	19.5	18.5	22.5	22.0	17.5	17.5
20	10.0	9.5	13.0	12.0	17.5	17.5	19.5	19.0	22.0	22.0	17.5	17.0
21	10.0	9.5	13.0	12.5	17.5	17.0	20.0	19.0	22.0	21.5	17.5	17.0
22	11.0	10.0	13.5	12.5	18.0	17.5	20.5	19.0	21.5	21.0	17.5	16.5
23	11.0	10.0	13.5	13.0	18.0	17.0	20.5	19.0	21.5	21.0	17.0	16.5
24	11.0	10.5	13.5	13.0	18.5	17.5	20.5	19.5	21.0	20.5	17.0	16.5
25	11.5	11.0	13.5	12.5	19.0	18.0	20.0	19.5	20.5	20.0	16.5	16.0
26	12.0	11.0	13.5	12.5	19.5	18.5	21.0	19.5	20.5	20.0	16.5	16.0
27	12.0	11.0	13.5	13.0	19.5	18.5	20.5	19.5	20.0	19.5	16.0	16.0
28	12.0	11.5	13.5	13.0	19.0	18.5	20.5	20.0	20.0	19.5	16.0	15.5
29	13.0	12.0	13.5	13.0	19.5	18.5	20.5	20.0	19.5	19.5	16.0	15.5
30	13.0	12.0	13.5	13.0	19.5	18.5	21.0	20.0	19.5	19.0	16.0	15.5
31	---	---	13.5	13.5	---	---	21.0	20.0	19.5	19.0	---	---
MONTH	13.0	7.0	13.5	11.5	19.5	13.5	21.0	18.0	23.5	19.0	20.0	15.5

14247295 COLUMBIA RIVER AT WAUNA, OR

LOCATION.--Lat 46°09'40", long 123°24'30", in SE¼ sec.22, T.8 N., R.6 W., Clatsop County, Hydrologic Unit 17080003, on left bank at northwest end of Crown-Zellerbach wood-pulp processing plant at Wauna, and at mile 41.5 (66.8 km).

DRAINAGE AREA.--257,000 mi² (665,600 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1971 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is at Columbia River datum, 1.76 ft (0.536 m) below mean sea level.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 11.96 ft (3.645 m) Dec. 21, 1972; minimum recorded, -0.46 ft (-0.140 m) June 29, Aug. 1, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 9.32 ft (2.841 m) Oct. 24; minimum recorded, -0.46 ft (-0.140 m) June 29, Aug. 1.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.04	0.63	3.87	6.77	1.03	3.70	6.78	1.04	3.55	---	---	---
2	6.74	0.89	3.91	6.69	0.93	3.49	7.16	0.81	3.72	---	---	---
3	6.29	0.49	3.43	6.70	0.63	3.44	7.34	0.58	3.80	---	---	---
4	6.50	0.39	3.44	7.24	0.67	3.72	7.32	0.12	3.71	---	---	---
5	7.04	0.67	3.78	7.45	0.41	3.88	7.10	-0.09	3.50	---	---	---
6	7.08	0.94	3.82	7.20	0.36	3.76	7.36	0.03	3.69	---	---	---
7	7.24	0.89	3.92	7.48	0.11	3.98	7.77	0.26	4.08	---	---	---
8	7.56	0.81	4.21	7.44	0.14	3.94	8.36	0.80	4.72	---	---	---
9	7.73	0.71	4.23	7.52	0.32	4.01	7.55	0.24	4.31	---	---	---
10	7.55	0.51	4.16	7.30	0.43	4.06	7.02	0.03	3.83	---	---	---
11	7.30	0.48	4.00	7.18	0.42	4.06	6.73	0.01	3.77	---	---	---
12	6.84	0.44	3.68	6.73	0.46	3.94	6.42	0.17	3.79	---	---	---
13	6.76	0.42	3.73	6.50	0.57	4.00	6.69	0.45	3.80	---	---	---
14	6.50	0.61	3.75	6.45	0.88	4.18	7.00	0.70	3.78	---	---	---
15	6.29	0.89	3.80	6.48	1.01	3.86	7.42	1.03	3.90	---	---	---
16	5.76	0.87	3.58	---	---	---	7.82	1.18	4.07	---	---	---
17	5.50	0.50	3.15	---	---	---	8.37	1.01	4.34	---	---	---
18	5.70	0.18	2.55	---	---	---	8.59	0.58	4.30	---	---	---
19	6.56	0.47	3.45	---	---	---	8.51	0.24	4.13	---	---	---
20	7.41	0.88	3.97	---	---	---	8.74	0.13	4.29	---	---	---
21	8.03	0.91	4.19	---	---	---	8.90	0.50	4.51	---	---	---
22	8.56	0.79	4.47	---	---	---	---	---	---	---	0.34	---
23	8.77	0.53	4.58	---	---	---	---	---	---	6.95	0.33	---
24	9.32	0.59	4.68	---	---	---	---	---	---	---	---	---
25	8.71	0.59	4.73	---	---	---	---	---	---	---	---	---
26	8.21	0.46	4.32	---	---	---	---	---	---	---	---	---
27	7.83	0.31	4.19	---	---	---	---	---	---	---	1.51	---
28	7.07	0.38	4.00	---	---	---	---	---	---	---	1.17	---
29	6.43	0.35	3.77	---	---	---	---	---	---	6.31	0.55	3.40
30	6.10	0.48	3.54	6.17	1.23	---	---	---	---	6.69	0.69	3.60
31	7.23	0.81	4.05	---	---	---	---	---	---	7.31	0.86	3.99
MONTH	9.32	0.18	3.90	7.52	0.11	3.86	8.90	-0.09	3.98	7.31	0.33	---

14247295 COLUMBIA RIVER AT WAUNA, OR--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.41	0.54	4.07	---	---	---	---	0.40		---	---	---
2	7.45	0.49	3.99	---	---	---	---	0.24		---	---	---
3	7.69	0.30	4.07	---	---	---	6.88	0.20		---	---	---
4	7.80	0.45	4.12	---	---	---	---	-0.06		---	---	---
5	7.51	0.22	3.97	---	---	---	---	-0.03		---	---	---
6	7.29	0.18	3.89	---	---	---	---	---		---	---	---
7	6.98	0.42	3.76	---	---	---	---	---		---	---	---
8	7.66	0.47	4.23	---	---	---	---	---		---	---	---
9	7.48	0.86	3.93	---	---	---	---	---		---	---	---
10	8.22	1.23	4.46	---	---	---	---	---		---	---	---
11	7.35	0.64	3.75	---	---	---	---	---		---	---	---
12	---	0.25	---	---	---	---	---	---		---	---	---
13	6.60	-0.18	---	---	---	---	---	---		---	---	---
14	---	-0.12	---	---	---	---	---	---		---	---	---
15	---	---	---	---	---	---	---	---		---	---	---
16	---	---	---	---	---	---	---	---		---	---	---
17	---	---	---	---	---	---	---	---		---	---	---
18	---	---	---	7.31	0.79	---	---	---		---	---	---
19	---	---	---	7.30	0.86	4.04	---	---		---	---	---
20	---	---	---	7.16	0.62	3.78	---	---		---	---	---
21	---	---	---	7.18	0.63	3.80	---	---		---	---	---
22	---	---	---	7.22	0.66	4.01	---	---		---	---	---
23	---	---	---	7.53	0.97	4.30	---	---		---	---	---
24	---	---	---	7.42	0.94	4.06	---	---		---	---	---
25	---	---	---	6.60	0.60	3.55	---	---		---	---	---
26	---	---	---	6.32	0.86	3.64	---	---		---	---	---
27	---	---	---	6.49	1.38	3.73	---	---		7.58	1.73	---
28	---	---	---	5.36	0.62	3.13	---	---		7.68	1.63	4.18
29	---	---	---	5.10	0.30	2.91	---	---		7.66	0.95	3.89
30	---	---	---	5.38	0.07	2.86	---	---		7.90	0.46	3.84
31	---	---	---	5.77	1.08	3.15	---	---		8.12	0.26	4.08
MONTH	8.22	-0.18	4.02	7.53	0.07	3.61	---	-0.06		8.12	0.26	3.99

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.73	0.73	4.55	8.14	-0.26	3.72	7.18	-0.46	3.53	7.02	0.47	3.68
2	8.92	0.74	4.71	8.09	-0.26	---	7.02	-0.02	3.70	7.04	0.49	3.74
3	9.01	0.80	4.89	---	---	---	7.06	0.27	3.80	6.84	0.76	3.70
4	9.06	0.95	4.97	---	---	---	6.99	0.50	3.78	6.54	1.00	3.84
5	8.24	0.41	4.44	---	---	---	6.89	0.64	3.68	5.96	0.87	3.34
6	7.56	0.49	4.29	---	---	---	6.38	1.07	3.44	5.73	0.55	3.10
7	6.85	0.51	3.98	---	---	---	6.19	0.67	3.13	5.72	0.47	3.08
8	6.69	0.60	3.63	---	---	---	6.19	0.58	3.10	5.69	0.14	2.88
9	6.69	0.87	3.40	---	---	---	6.20	0.30	3.02	5.91	-0.09	2.77
10	6.79	1.16	3.44	---	---	---	6.40	0.05	3.01	6.03	-0.05	3.03
11	6.76	0.85	3.36	---	---	---	6.35	-0.04	3.15	6.41	-0.03	3.17
12	6.79	0.46	3.41	---	---	---	6.82	-0.04	3.44	6.73	-0.09	3.25
13	7.00	0.16	3.46	---	---	---	7.24	0.05	3.59	7.13	0.16	3.68
14	7.08	0.23	3.57	---	---	---	7.25	-0.07	3.57	7.63	0.70	4.11
15	7.06	0.08	3.54	---	---	---	7.28	-0.10	3.66	7.90	0.76	4.25
16	7.08	0.09	3.68	---	---	---	7.26	0.16	3.87	8.14	0.80	4.40
17	7.22	0.25	3.91	---	---	---	7.31	0.46	4.10	8.12	0.56	4.46
18	7.37	0.20	3.90	---	---	---	7.29	0.59	4.03	7.82	0.61	4.24
19	6.99	-0.11	3.61	---	---	---	7.24	0.51	3.80	8.06	0.87	4.61
20	6.76	-0.17	3.57	---	---	---	7.12	0.72	3.70	7.40	1.11	4.32
21	6.43	-0.25	3.36	---	---	---	6.92	0.39	3.42	6.88	0.66	3.75
22	5.97	-0.23	3.20	---	---	---	7.07	0.09	3.37	7.16	0.41	3.63
23	6.04	-0.04	3.07	---	---	---	7.36	0.32	3.60	7.59	0.52	3.93
24	6.12	0.18	2.96	---	---	---	7.69	0.46	3.81	7.57	0.79	4.09
25	6.49	0.38	2.96	7.02	---	---	7.80	0.37	3.85	7.61	0.77	4.11
26	6.83	0.28	2.96	7.23	-0.13	3.17	8.03	0.24	3.88	7.67	0.82	4.17
27	7.05	-0.11	2.95	7.30	-0.38	3.19	7.78	-0.01	3.75	7.72	0.94	4.23
28	6.95	-0.29	3.08	7.59	-0.40	3.33	7.90	0.22	3.99	8.05	0.97	4.44
29	7.39	-0.46	3.23	7.69	-0.43	3.43	7.68	0.17	4.00	7.83	0.84	4.39
30	7.68	-0.37	3.51	7.73	-0.39	3.54	7.57	0.47	4.10	7.50	0.78	4.15
31	---	---	---	7.55	-0.19	3.58	7.32	0.40	3.88	---	---	---
MONTH	9.06	-0.46	3.65	8.14	-0.43	3.42	8.03	-0.46	3.63	8.14	-0.09	3.81
YEAR	9.32	-0.46	3.78									

14247400 COLUMBIA RIVER AT BRADWOOD, OR

LOCATION.--Lat 46°11'45", long 123°25'50", in SW¼NE¼ sec.9, T.8 N., R.6 W., Clatsop County, Hydrologic Unit 17080003, at Bradwood, and at mile 38.9 (62.6 km).

DRAINAGE AREA.--257,100 mi² (665,900 km²).

PERIOD OF RECORD.--Water years 1974 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1976 to current year.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 22.5°C Aug. 12, 16, 17; minimum, 2.5°C Jan. 12-15, Jan. 26 to Feb. 2.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TEMPER-ATURE (DEG C)	PH (UNITS)	DIS-SOLVED OXYGEN (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	FECAL COLI-FORM .7UM-MF (COL./100 ML)	FECAL STREP-TOCOCCI KF AGAR (COL. PER 100 ML)	CHLORO-PHYLL A (UG/L)	CHLORO-PHYLL B (UG/L)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)
OCT											
05...	1430	17.5	7.8	9.1	148	--	84	5.01	.000	--	--
21...	1400	14.4	7.7	10.0	153	832	39	10.3	1.01	--	--
DEC											
07...	1200	8.0	7.2	9.9	164	190	110	2.49	.019	--	--
JAN											
06...	1200	3.8	8.2	12.6	173	310	--	--	--	.030	.000
28...	1200	--	--	--	180	--	--	--	--	--	--
MAR											
01...	1300	5.4	7.8	12.8	181	84	813	--	--	--	--
31...	1300	7.5	7.6	12.6	156	180	--	--	--	1.09	.033
APR											
29...	1200	12.6	8.1	11.0	168	87	--	2.84	.607	--	--
MAY											
26...	1100	13.5	8.4	--	165	55	75	.867	.481	--	--
JUL											
05...	1200	18.5	8.3	8.9	144	61	88	18.3	1.30	--	--
AUG											
01...	1315	21.5	8.1	8.6	148	--	--	2.86	.360	--	--
SEP											
08...	1200	19.7	7.3	8.6	144	>400	819	--	--	--	--

DATE	CHEM-ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)
OCT											
05...	26	6.7	.10	.01	.29	.30	.40	.04	1.5	76	.10
21...	3	7.2	.15	.10	.22	.32	.47	.03	1.7	83	.11
DEC											
07...	7	9.5	.22	.00	.35	.35	.57	.05	1.8	92	.13
JAN											
06...	15	9.4	.27	.01	.34	.35	.62	.04	1.6	107	.15
28...	28	9.4	.27	.01	.05	.06	.33	.06	1.7	104	.14
MAR											
01...	18	8.7	.37	.06	.39	.45	.82	.02	2.0	105	.14
31...	--	8.5	.23	.04	.28	.32	.55	.04	2.6	92	.13
APR											
29...	10	6.3	.09	.01	.49	.50	.59	.03	2.5	118	.16
MAY											
26...	10	6.0	.01	.03	.59	.62	.63	.07	2.8	105	.14
JUL											
05...	20	5.1	.01	.03	.05	.08	.09	.04	2.1	77	.10
AUG											
01...	8	3.6	.03	.00	.57	.57	.60	.04	2.6	80	.11
SEP											
08...	13	7.9	.13	.00	.23	.23	.36	.04	--	79	.11

DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
OCT										
05...	--	<10	0	20	270	<100	20	0	.0	3
21...	1	<10	0	10	240	<100	20	0	1.1	0
DEC										
07...	1	<10	0	<10	270	<100	20	0	.0	13
JAN										
06...	2	<10	0	<10	200	<100	40	0	.0	10
28...	1	<10	0	20	410	<100	30	1	.1	0
MAR										
01...	3	<10	10	<10	330	<100	30	0	.2	0
31...	0	<10	0	20	250	<100	30	0	.4	6
APR										
29...	2	<10	0	20	190	<100	20	0	.0	13
MAY										
26...	1	<10	0	<10	300	<100	30	0	.0	10
JUL										
05...	1	<10	10	<10	390	<100	20	0	.0	12
AUG										
01...	2	<10	5	30	420	<100	30	1	.0	33
SEP										
08...	0	10	0	10	220	<100	50	0	.0	3

14247400 COLUMBIA RIVER AT BRADWOOD, OR—Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL CAL-CIUM (CA) (MG/L)	TOTAL MAG-NE-SIUM (MG) (MG/L)	TOTAL PO-TAS-SIUM (K) (MG/L)	TOTAL SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	OIL AND GREASE (MG/L)
OCT									
21...	--	--	--	--	68	0	8.9	4.7	0
JAN									
28...	19	5.7	1.4	8.4	--	--	17	5.6	0
APR									
29...	19	5.2	1.2	6.3	79	0	14	5.0	0
AUG									
01...	16	4.3	1.2	6.0	63	0	10	4.9	0

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.0	18.0	13.0	13.0	8.5	8.0	5.5	5.0	3.0	2.5	5.5	5.0
2	18.0	17.5	13.0	13.0	8.5	8.0	5.0	5.0	3.0	2.5	5.5	5.0
3	17.5	17.0	13.0	12.5	8.0	8.0	5.0	4.5	3.0	3.0	5.5	5.5
4	17.5	17.0	12.5	12.5	8.0	7.5	4.5	4.0	3.5	3.0	5.5	5.5
5	17.5	17.0	12.5	12.5	8.0	7.5	4.0	4.0	3.0	3.0	5.5	5.5
6	17.0	17.0	12.5	12.5	8.0	7.5	4.0	3.5	3.5	3.0	5.5	5.5
7	17.0	16.5	12.5	12.0	8.0	8.0	4.0	3.5	3.0	3.0	6.0	5.5
8	17.0	17.0	12.5	12.0	8.0	8.0	3.5	3.5	3.0	3.0	5.5	5.5
9	17.0	17.0	12.0	12.0	8.0	7.5	3.5	3.0	3.0	3.0	5.5	5.5
10	17.0	17.0	12.0	12.0	7.5	7.5	3.0	3.0	3.5	3.0	6.0	5.5
11	17.0	16.5	12.0	12.0	7.5	7.5	3.0	3.0	3.5	3.5	6.0	5.5
12	17.0	17.0	12.0	12.0	7.5	7.0	3.0	2.5	3.5	3.5	6.0	5.5
13	17.0	16.5	12.0	11.5	7.0	7.0	2.5	2.5	4.0	3.5	6.0	5.5
14	17.0	16.5	11.5	11.5	7.0	7.0	3.0	2.5	4.0	3.5	6.0	5.5
15	16.5	16.5	11.5	11.5	7.0	7.0	3.0	2.5	4.0	3.5	6.0	5.5
16	16.5	16.0	11.0	11.0	7.0	7.0	3.5	3.0	4.0	4.0	6.0	5.5
17	16.0	15.5	11.0	11.0	7.0	6.5	3.5	3.5	4.5	4.0	6.0	5.5
18	15.5	15.0	11.0	10.5	6.5	6.5	4.0	3.5	5.0	4.0	6.0	6.0
19	15.5	15.0	11.0	10.5	6.5	6.5	4.0	4.0	5.0	4.5	6.0	6.0
20	15.0	14.5	11.0	11.0	6.5	6.5	4.0	3.5	5.0	4.5	6.0	6.0
21	14.5	14.0	11.0	11.0	6.5	6.0	3.5	3.5	5.0	4.5	6.0	6.0
22	14.0	14.0	11.0	10.5	6.0	6.0	3.5	3.5	5.0	4.5	6.5	6.0
23	14.0	13.5	10.5	10.5	6.0	6.0	3.5	3.5	5.0	5.0	6.5	6.0
24	14.0	13.5	10.5	10.0	6.0	5.5	3.5	3.0	5.0	5.0	6.5	6.5
25	13.5	13.5	10.0	10.0	5.5	5.5	3.0	3.0	5.0	4.5	6.5	6.5
26	14.0	13.5	10.0	9.5	5.5	5.5	3.0	2.5	4.5	4.5	6.5	6.5
27	14.0	13.5	9.5	9.5	6.0	5.5	2.5	2.5	5.0	4.5	6.5	6.5
28	13.5	13.5	9.5	9.0	6.0	5.5	2.5	2.5	5.0	4.5	7.0	6.5
29	13.5	13.5	9.0	8.5	6.0	5.5	2.5	2.5	---	---	7.0	6.5
30	13.5	13.0	8.5	8.0	6.0	5.5	2.5	2.5	---	---	7.0	6.5
31	13.0	13.0	---	---	6.0	5.5	3.0	2.5	---	---	7.5	7.0
MONTH	18.0	13.0	13.0	8.0	8.5	5.5	5.5	2.5	5.0	2.5	7.5	5.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	7.0	12.5	12.5	13.5	13.0	19.0	18.5	21.5	20.5	19.5	19.0
2	7.5	7.0	12.5	12.5	13.5	13.0	18.5	18.0	21.5	20.5	19.5	19.0
3	7.5	7.0	12.5	12.5	13.5	13.5	18.5	18.0	21.5	20.5	19.5	18.5
4	8.0	7.0	12.5	12.0	13.5	13.5	18.5	18.0	21.5	20.5	19.5	18.5
5	8.5	7.5	12.0	11.5	14.5	13.5	18.5	18.0	21.5	20.5	19.5	18.5
6	8.5	8.5	12.0	11.5	15.0	14.0	18.5	18.0	21.5	21.0	19.5	18.5
7	8.5	8.5	12.0	11.5	15.0	14.5	19.0	18.0	21.5	20.5	19.5	18.5
8	9.0	8.5	12.5	12.0	15.0	14.5	18.5	18.0	21.5	20.5	19.5	18.5
9	9.0	9.0	13.0	12.0	15.5	15.0	18.0	18.0	21.5	21.0	19.0	18.5
10	9.0	9.0	12.5	12.0	15.5	15.5	18.5	18.0	22.0	21.5	19.0	18.5
11	9.5	9.0	12.5	12.0	15.5	15.5	18.5	18.0	22.0	21.5	19.0	18.5
12	9.5	9.0	12.5	12.0	16.0	15.5	18.5	18.5	22.5	22.0	19.0	18.5
13	9.5	9.0	12.0	12.0	16.0	15.5	18.5	18.0	22.0	21.5	18.5	18.5
14	9.5	9.0	12.0	12.0	16.0	15.5	18.5	18.0	21.5	21.5	18.5	18.5
15	9.5	9.5	12.5	12.0	16.0	15.5	18.5	18.0	22.0	21.5	18.5	18.5
16	9.5	9.5	12.5	12.0	16.0	15.5	18.5	18.0	22.5	21.5	18.5	18.5
17	10.0	9.0	12.5	12.0	17.0	16.0	18.5	18.0	22.5	22.0	18.5	18.0
18	10.0	9.5	12.0	12.0	17.0	16.5	18.5	18.0	22.0	22.0	18.0	18.0
19	10.0	9.0	12.5	11.5	17.0	16.5	19.0	18.0	22.0	21.5	18.0	17.5
20	10.0	9.5	12.5	12.0	17.0	17.0	19.0	18.5	21.5	21.5	18.0	17.5
21	10.0	9.5	12.5	12.5	17.0	17.0	19.5	18.5	21.5	21.0	17.5	17.0
22	10.0	9.5	13.0	12.5	17.5	17.0	19.5	19.0	21.5	21.0	17.5	17.0
23	10.5	10.0	13.0	12.5	18.0	17.0	19.5	19.0	21.0	20.5	17.0	17.0
24	10.5	10.5	13.0	12.5	18.0	17.5	20.0	19.0	20.5	20.5	17.0	16.5
25	11.0	10.5	13.0	12.5	18.0	17.5	20.0	19.5	20.5	19.5	16.5	16.5
26	11.0	11.0	13.5	12.5	18.5	18.0	19.5	19.0	20.0	19.5	17.0	16.5
27	11.5	11.0	13.5	12.5	18.5	18.0	19.5	19.5	19.5	19.5	16.5	16.5
28	12.0	11.5	13.5	12.5	18.5	18.5	19.5	19.5	19.5	19.0	16.5	16.5
29	12.5	11.5	13.5	12.5	18.5	18.0	20.0	19.5	19.0	19.0	16.5	16.0
30	12.5	12.0	13.5	12.5	19.0	18.0	20.5	19.5	19.0	18.5	16.0	16.0
31	---	---	13.5	13.0	---	---	21.0	20.0	19.5	18.5	---	---
MONTH	12.5	7.0	13.5	11.5	19.0	13.0	21.0	18.0	22.5	18.5	19.5	16.0

14248600 COLUMBIA RIVER AT ALTOONA, WA

LOCATION.--Lat 46°15'55", long 123°39'13", in SW¼NE¼ sec.15, T.19 N., R.8 W., Wahkiakum County, Hydrologic Unit 17080006, temperature recorder on right bank, on Bumblebee Canning Company dock, at Altoona, and at mile 24.1 (38.8 km).

DRAINAGE AREA.--258,000 mi² (668,200 km²), approximately.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1971 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 23.0°C Aug. 11-13, 16-20, 22, 1977; minimum, 0.5°C Jan. 11, 12, 1974.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 23.0°C Aug. 11-13, 16-20, 22; minimum, 2.5°C Jan. 30.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	18.0	13.5	13.0	8.5	8.0	5.5	5.0	3.5	3.0	5.5	5.0
2	18.0	17.5	13.5	13.0	8.0	7.5	5.0	4.5	3.5	3.0	5.5	5.5
3	18.0	17.5	13.0	13.0	8.0	7.5	5.0	4.5	3.0	3.0	6.0	5.5
4	17.5	17.0	13.0	13.0	7.5	7.5	4.5	4.0	3.5	3.0	6.0	5.5
5	17.5	17.0	13.0	13.0	7.5	7.5	4.0	3.5	3.5	3.5	6.0	5.5
6	17.5	17.5	12.5	12.5	7.5	7.5	3.5	3.5	4.0	3.5	6.0	6.0
7	17.5	17.0	12.5	12.5	7.5	7.5	3.5	3.5	3.5	3.5	6.0	6.0
8	17.0	17.0	12.5	12.5	8.0	7.5	3.5	3.5	3.5	3.5	6.0	6.0
9	17.5	17.0	12.5	12.5	8.0	7.5	3.5	3.0	3.5	3.5	6.5	6.0
10	17.5	17.0	12.5	12.0	7.5	7.5	3.5	3.0	4.0	3.5	6.5	6.0
11	17.5	17.0	12.5	12.0	7.5	7.0	3.0	3.0	4.0	3.5	6.5	6.0
12	17.5	17.0	12.5	12.0	7.0	7.0	3.5	3.0	4.0	3.5	6.0	6.0
13	17.0	16.5	12.0	12.0	7.5	7.0	3.0	3.0	4.0	3.5	6.5	6.0
14	17.0	17.0	12.0	11.5	7.0	7.0	3.0	3.0	4.5	3.5	6.0	6.0
15	17.0	16.5	11.5	11.5	7.0	7.0	3.0	3.0	4.5	4.0	6.5	6.0
16	16.5	16.0	11.5	11.5	7.0	7.0	3.5	3.0	4.5	4.0	6.5	6.0
17	16.0	15.5	11.5	11.5	7.0	6.5	4.0	3.5	4.5	4.5	6.5	6.0
18	16.0	15.5	11.0	11.0	6.5	6.5	4.0	4.0	5.0	4.5	6.5	6.0
19	15.5	15.0	11.0	11.0	6.5	6.0	4.5	4.0	5.5	5.0	6.5	6.5
20	15.5	14.5	11.0	10.5	6.0	6.0	4.5	4.0	5.5	5.0	6.5	6.0
21	15.0	14.5	11.0	11.0	6.0	6.0	4.0	4.0	5.5	5.0	7.0	6.5
22	14.5	14.0	11.0	10.5	6.0	6.0	4.0	3.5	5.5	5.0	7.0	6.5
23	14.0	14.0	10.5	10.5	6.0	6.0	4.0	3.5	5.5	5.0	7.0	6.5
24	14.0	13.5	10.5	10.5	6.0	5.5	3.5	3.5	5.5	5.0	7.5	6.5
25	13.5	13.5	10.5	10.0	5.5	5.5	3.5	3.5	5.5	5.0	7.5	7.0
26	14.0	13.5	10.0	9.5	6.0	5.5	3.5	3.0	5.0	5.0	7.5	7.0
27	14.0	13.5	9.5	9.5	6.0	5.5	3.0	3.0	5.5	5.0	7.5	7.0
28	14.0	13.5	9.5	9.0	5.5	5.0	3.0	3.0	5.0	5.0	7.5	7.0
29	14.0	13.5	9.0	8.5	5.5	5.5	3.0	3.0	---	---	7.5	7.0
30	13.5	13.0	9.0	8.5	6.0	5.5	3.0	2.5	---	---	8.0	7.0
31	13.5	13.0	---	---	5.5	5.0	3.0	3.0	---	---	7.5	7.5
MONTH	18.5	13.0	13.5	8.5	8.5	5.0	5.5	2.5	5.5	3.0	8.0	5.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	7.5	---	---	14.5	13.5	19.5	19.0	22.0	21.0	20.5	19.5
2	8.0	7.5	---	---	14.5	14.0	19.5	19.0	22.5	21.0	20.0	20.0
3	8.0	7.5	14.0	13.0	14.5	14.0	19.0	19.0	22.0	21.5	20.5	20.0
4	8.5	7.5	13.5	13.0	14.5	14.0	19.5	18.5	21.5	21.0	20.0	19.5
5	9.0	8.0	13.0	12.5	15.5	14.0	19.5	18.5	22.5	21.0	20.5	19.5
6	9.0	8.5	13.5	12.5	16.5	15.0	20.0	18.5	22.0	21.5	20.5	19.5
7	9.0	8.5	13.5	12.5	16.0	15.5	20.0	19.0	22.0	21.5	20.5	19.5
8	10.0	9.0	14.0	12.5	16.0	15.0	19.5	19.0	22.5	21.0	20.0	19.5
9	10.0	9.0	14.0	13.0	17.0	15.5	19.0	19.0	22.5	20.5	20.0	19.5
10	10.0	9.5	13.5	13.0	17.0	16.0	19.0	18.5	22.5	21.0	20.0	19.5
11	10.5	9.5	14.0	13.0	16.5	16.0	19.0	18.5	23.0	21.5	20.0	19.0
12	10.5	10.0	13.5	13.0	17.0	16.0	19.0	18.0	23.0	22.0	20.0	19.5
13	10.5	10.0	13.5	13.0	16.5	16.5	19.5	18.5	23.0	22.5	20.0	19.5
14	10.5	10.0	13.0	13.0	16.5	16.0	19.5	19.0	22.5	22.0	19.5	19.0
15	10.0	10.0	13.5	13.0	17.0	16.0	19.5	19.0	22.5	21.5	19.0	19.0
16	10.5	10.0	13.5	13.0	17.5	16.0	19.5	19.0	23.0	22.0	19.0	19.0
17	10.5	10.0	13.0	13.0	18.0	17.0	19.0	18.5	23.0	22.5	19.0	19.0
18	---	---	13.0	13.0	17.5	17.0	19.5	18.5	23.0	22.0	19.0	18.5
19	---	---	14.0	12.5	18.0	17.5	20.0	18.5	23.0	22.5	18.5	18.5
20	---	---	13.5	13.0	17.5	17.5	19.5	19.0	23.0	22.5	18.5	18.0
21	---	---	14.0	13.0	18.0	17.5	20.5	19.0	22.5	22.0	18.5	18.0
22	---	---	14.5	13.5	19.0	17.5	20.5	19.0	23.0	22.0	18.0	18.0
23	---	---	14.0	13.5	19.0	17.5	21.0	19.5	22.0	21.5	18.0	17.5
24	---	---	14.5	13.5	19.0	18.0	21.0	19.5	22.0	21.0	17.5	17.5
25	---	---	14.0	13.5	19.5	18.0	20.5	20.0	21.5	21.0	17.5	17.0
26	---	---	14.0	13.5	19.5	18.5	21.0	19.5	21.0	20.5	17.5	17.0
27	---	---	13.5	13.0	19.5	18.5	20.5	20.0	20.5	20.5	17.5	17.0
28	---	---	14.0	13.0	19.5	19.0	20.5	19.5	20.5	20.0	17.5	17.0
29	---	---	14.0	13.5	19.5	18.5	21.0	19.5	20.0	20.0	17.0	17.0
30	---	---	14.0	13.5	20.0	19.0	21.5	19.5	20.5	19.5	17.0	16.5
31	---	---	13.5	13.5	---	---	21.5	20.5	20.5	19.5	---	---
MONTH	10.5	7.5	14.5	12.5	20.0	13.5	21.5	18.0	23.0	19.5	20.5	16.5

NEHALEM RIVER BASIN

14301000 NEHALEM RIVER NEAR FOSS, OR
(National stream-quality accounting network station)

LOCATION.--Lat 45°42'15", long 123°45'15", in NW¼ sec.35, T.3 N., R.9 W., Tillamook County, Hydrologic Unit 17100202, on right bank 0.2 mi (0.3 km) upstream from Cook Creek, 2.2 mi (3.5 km) northeast of Foss, and at mile 13.5 (21.7 km).

DRAINAGE AREA.--667 mi^2 (1,728 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 32.60 ft (9.936 m) above mean sea level (State Highway Department banch mark). Prior to Nov. 11, 1939, nonrecording gage.

REMARKS.--Water-discharge records excellent. No regulation. Several small diversions for irrigation and domestic use above station.

AVERAGE DISCHARGE.--38 years, 2,746 ft^3/s (77.77 m^3/s), 55.91 in/yr (1,420 mm/yr), 1,989,000 acre-ft/yr (2.45 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,900 ft^3/s (1,328 m^3/s) Jan. 20, 1972, gage height, 23.11 ft (7.044 m); minimum, 34 ft^3/s (0.96 m^3/s) Aug. 29-31, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,300 ft^3/s (405 m^3/s) Mar. 9, gage height, 12.04 ft (3.670 m), no peak above base of 19,000 ft^3/s (538 m^3/s); minimum, 59 ft^3/s (1.67 m^3/s) Aug. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	676	216	797	532	8170	3660	607	2000	318	127	513
2	98	519	207	769	493	8020	3210	648	2070	313	120	390
3	107	431	203	733	462	7260	2780	1080	1860	313	114	373
4	107	345	199	676	443	5860	2460	1610	2080	318	107	964
5	107	292	203	620	419	4490	2220	1880	1950	318	104	1050
6	101	253	199	566	402	3640	2030	1730	1720	323	101	747
7	101	225	203	493	390	6430	1870	1520	1500	318	98	593
8	98	212	292	468	378	10800	1730	1360	1350	292	95	462
9	95	199	613	419	373	13400	1640	1310	1210	287	89	378
10	95	187	573	468	419	11400	1500	1200	1090	272	86	329
11	95	179	552	456	552	8320	1360	1130	1000	258	80	292
12	98	175	468	481	566	7060	1260	1050	933	258	77	262
13	95	167	413	552	655	6100	1270	964	864	262	72	239
14	92	175	378	593	627	5370	1230	933	812	253	69	221
15	92	216	356	655	586	4910	1180	988	761	239	66	207
16	92	297	356	776	552	4460	1160	1110	704	230	64	207
17	89	356	339	776	539	3930	1110	1160	655	221	64	203
18	86	552	356	776	513	3650	1040	1170	613	216	59	225
19	80	500	345	783	487	3610	988	1070	573	207	59	456
20	77	431	323	747	552	3400	933	980	546	195	61	972
21	77	378	313	704	933	3090	894	941	546	195	66	1420
22	77	339	313	655	2150	2850	872	879	526	187	66	1270
23	77	307	390	613	2510	2700	827	834	493	171	83	1090
24	98	287	468	579	2140	2720	790	797	468	163	160	1160
25	234	292	500	546	1800	2530	769	761	431	156	248	1200
26	345	287	1620	513	2200	2400	747	879	407	156	431	1260
27	297	262	2640	474	2850	4070	718	972	384	156	362	1170
28	267	248	2010	450	5330	4730	683	1250	367	152	367	995
29	221	239	1460	450	---	5110	648	1310	345	145	506	948
30	191	225	1130	443	---	4550	641	1210	334	141	948	1000
31	262	---	925	456	---	3910	---	1380	---	134	747	---
TOTAL	4043	9251	18563	18487	29853	168940	42220	34713	28592	7167	5696	20596
MEAN	130	308	599	596	1066	5450	1407	1120	953	231	184	687
MAX	345	676	2640	797	5330	13400	3660	1880	2080	323	948	1420
MIN	77	167	199	419	373	2400	641	607	334	134	59	203
CFSM	.20	.46	.90	.89	1.60	8.17	2.11	1.68	1.43	.35	.28	1.03
IN.	.23	.52	1.04	1.03	1.66	9.42	2.35	1.94	1.59	.40	.32	1.15
AC-FT	8020	18350	36820	36670	59210	335100	83740	68850	56710	14220	11300	40850

CAL YR 1976 TOTAL 678147 MEAN 1853 MAX 17400 MIN 77 CFSM 2.78 IN 37.82 AC-FT 1345000
WTR YR 1977 TOTAL 388121 MEAN 1063 MAX 13400 MIN 59 CFSM 1.59 IN 21.65 AC-FT 769800

NEHALEM RIVER BASIN

14301000 NEHALEM RIVER NEAR FOSS, OR--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: December 1974 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 24.5°C Aug. 12, 1977; minimum, 0.0°C Jan. 8-10, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 24.5°C Aug. 12; minimum, 0.0°C Jan. 8-10.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	DISSOLVED OXYGEN (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
OCT												
28...	1300	258	10.9	7.4	10.5	93	27	27	13	7.2	2.3	7.6
NOV												
22...	1500	337	8.0	7.3	11.6	85	<1	B1	14	6.3	1.6	6.6
DEC												
17...	1200	334	7.2	7.6	12.6	77	B7	B2	14	5.7	1.5	6.1
JAN												
18...	1200	783	6.4	7.6	12.1	70	--	83	19	5.3	1.5	5.9
FEB												
24...	1200	2240	6.3	7.2	12.4	69	B21	31	11	4.8	1.3	5.9
MAR												
29...	1300	5240	6.5	7.1	11.7	55	B21	B15	13	4.7	1.4	4.6
APR												
21...	1200	964	9.9	7.1	11.7	63	B8	B2	14	5.8	1.6	5.0
JUN												
02...	1200	2100	10.9	7.1	11.6	65	<1	24	13	5.2	1.1	5.1
JUL												
06...	1130	318	15.0	7.1	9.9	75	120	88	14	6.3	1.7	5.8
20...	1500	195	17.8	8.2	10.5	80	B2	320	14	6.7	1.6	6.3
SEP												
09...	1200	378	15.2	7.0	10.1	71	>400	320	14	6.4	1.7	5.7

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO
OCT												
28...	34	0	5.9	7.6	.1	.00	.62	.62	.05	27	0	.6
NOV												
22...	30	0	5.2	5.9	.1	.37	.26	.63	.04	22	0	.6
DEC												
17...	29	0	4.8	6.1	.0	.41	.14	.55	.02	20	0	.6
JAN												
18...	25	0	6.3	5.9	.2	.53	.20	.73	.01	19	0	.6
FEB												
24...	21	0	5.7	5.5	.0	.87	.02	.89	.01	17	0	.6
MAR												
29...	14	0	4.8	5.4	.0	.60	.22	.82	.03	18	6	.5
APR												
21...	20	0	3.7	4.7	.1	.29	.15	.44	.02	21	5	.5
JUN												
02...	20	0	5.3	4.9	.1	.34	.08	.42	.01	18	1	.5
JUL												
06...	27	0	4.4	5.6	.0	.29	.19	.48	.05	23	1	.5
20...	29	0	4.3	5.9	.1	.12	.30	.42	.04	23	0	.6
SEP												
09...	25	0	2.9	5.8	.1	.49	.15	.64	.03	23	2	.5

B: RESULTS BASED ON NON-IDEAL COLONY COUNT

NEHALEM RIVER BASIN

14301000 NEHALEM RIVER NEAR FOSS, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TUR-BID-ITY (JTU)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT 28...	61	62	42.5	.08	3	2	1.4	76	19	28	2.9
NOV 22...	63	55	57.3	.09	2	8	7.3	96	--	25	--
DEC 17...	54	53	48.7	.07	2	3	2.7	50	--	24	--
JAN 18...	50	57	106	.07	3	4	8.5	69	--	21	1.7
FEB 24...	53	46	321	.07	9	10	60	84	--	17	--
MAR 29...	44	41	623	.06	7	17	241	74	--	11	--
APR 21...	42	45	109	.06	2	3	7.8	70	--	16	1.1
JUN 02...	49	45	278	.07	4	7	40	72	--	16	--
JUL 06...	55	52	47.2	.07	3	2	1.7	100	--	22	--
20...	56	54	29.5	.08	1	--	--	--	--	24	1.8
SEP 09...	49	50	50.0	.07	3	6	6.1	87	--	21	--

DATE	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)
OCT 28...	1300	330	30	10	1	1	<10	0	0	0	<50
JAN 18...	400	180	0	0	0	0	<10	0	0	0	<50
APR 21...	370	70	10	10	0	0	10	0	0	0	<50
JUL 20...	410	300	8	4	0	0	<10	0	10	0	<50

DATE	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)
OCT 28...	0	<10	2	<100	1	30	10	0	0	.0	.0
JAN 18...	0	<10	6	<100	0	10	10	0	0	.0	.0
APR 21...	0	<10	8	<100	2	40	20	0	0	.1	.0
JUL 20...	0	<10	2	<100	2	40	10	2	0	.0	.0

14301000 NEHALEM RIVER NEAR FOSS, OR--Continued

PESTICIDE ANALYSES

DATE	TOTAL ALDRIN (UG/L)	TOTAL LINDANE (UG/L)	TOTAL CHLORDANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DIELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL ETHION (UG/L)	TOTAL TOXAPHENE (UG/L)	TOTAL HEPTACHLOR (UG/L)	TOTAL HEPTACHLOR EPOXIDE (UG/L)
NOV , 1976												
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB , 1977												
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN												
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP												
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	TOTAL METHOXYCHLOR (UG/L)	TOTAL MALATHION (UG/L)	TOTAL PARATHION (UG/L)	TOTAL DIAZINON (UG/L)	TOTAL METHYL PARATHION (UG/L)	TOTAL ATRAZINE (UG/L)	SIMAZINE TOTAL COULSON COND. (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)	TOTAL TRITHION (UG/L)	TOTAL METHYL TRITHION (UG/L)
NOV , 1976												
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB , 1977												
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN												
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP												
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	ALDRIN IN BOTTOM MATERIAL (UG/KG)	LINDANE IN BOTTOM MATERIAL (UG/KG)	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	DDE IN BOTTOM MATERIAL (UG/KG)	DDT IN BOTTOM MATERIAL (UG/KG)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	ETHION IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR IN BOTTOM MATERIAL (UG/KG)
NOV , 1976												
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	MALATHION IN BOTTOM MATERIAL (UG/KG)	PARATHION IN BOTTOM MATERIAL (UG/KG)	DIAZINON IN BOTTOM MATERIAL (UG/KG)	METHYL PARATHION IN BOTTOM MATERIAL (UG/KG)	ATRAZINE IN BOTTOM MATERIAL (UG/KG DRY SOLIDS)	SIMAZINE IN BOTTOM MATERIAL (UG/KG DRY SOLIDS)	2,4-D IN BOTTOM MATERIAL (UG/KG)	2,4,5-T IN BOTTOM MATERIAL (UG/KG)	SILVEX IN BOTTOM MATERIAL (UG/KG)	TRITHION IN BOTTOM MATERIAL (UG/KG)	METHYL TRITHION IN BOTTOM MATERIAL (UG/KG)
NOV , 1976											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND: SPECIFICALLY LOOKED FOR BUT NOT DETECTED

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 28,76		NOV 22,76		DEC 27,76		JAN 18,77		FEB 24,77	
TIME	1300		1500		1200		1200		1200	
TOTAL CELLS/ML	1900		20		140		140		1100	
DIVERSITY: DIVISION	0.5		1.4		0.8		1.2		0.1	
.CLASS	0.5		1.4		0.8		1.2		0.1	
..ORDER	0.9		1.8		1.3		1.4		0.3	
...FAMILY	1.1		2.4		2.8		3.0		2.8	
....GENUS	1.1		2.4		3.1		0.0		2.9	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....CHARACIUM	--	-	--	-	--	-	14	10	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	100	5	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	10	7	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	11	8	--	-	--	-
....SCENEDESMUS	82	4	7#	38	23#	16	*	0	21	2
..TETRASPORALES										
...PALMELLACEAE										
....GLOEOCYSTIS	--	-	--	-	--	-	--	-	--	-
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	--	-
..ZYGNEMATALES										
...MESOTAENIACEAE										
....ROYA	--	-	2	13	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	--	-	20	14	3	2	21	2
....MELOSIRA	--	-	--	-	--	-	--	-	10	1
....STEPHANODISCUS	1600#	83	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	*	0	--	-	--	-	3	2	94	9
....COCCONEIS	21	1	*	0	8	6	*	0	--	-
....RHOICOSPHENIA	21	1	2	13	6	4	*	0	21	2
...CYMBELLACEAE										
....AMPHORA	--	-	--	-	--	-	--	-	--	-
....CYMBELLA	21	1	*	0	8	6	14	10	130	12
...DIATOMACEAE										
....DIATOMA	--	-	--	-	6	4	*	0	10	1
...EUNOTIACEAE										
....EUNOTIA	--	-	--	-	--	-	3	2	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	--	-	*	0	--	-
....FRAGILARIA	41	2	--	-	--	-	--	-	--	-
....HANNAEA	--	-	--	-	--	-	*	0	--	-
....SYNEDRA	--	-	2	13	3	2	44#	31	120	11
...GOMPHONEMATACEAE										
....GOMPHONEIS	--	-	--	-	--	-	--	-	--	-
....GOMPHONEMA	21	1	*	0	11	8	7	5	100	10
...NAVICULACEAE										
....NAVICULA	--	-	*	0	34#	24	3	2	220#	20
....PINNULARIA	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	--	-	2	13	8	6	20	14	320#	30
...SURIRELLACEAE										
....SURIRELLA	--	-	--	-	--	-	--	-	10	1
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	--	-	--	-	--	-
..HORMOGONALES										
...OSCILLATORIACEAE	--	-	--	-	--	-	20	14	--	-
...RIVULARIACEAE										
....CALOTHRIX	--	-	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...GLENODINIACEAE										
....GLENODINIUM	21	1	2	13	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
      * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

NEHALEM RIVER BASIN

14301000 NEHALEM RIVER NEAR FOSS, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	JUN 2,77	JUL 6,77	JUL 20,77	SEP 9,77
TIME	1200	1130	1500	1200
TOTAL CELLS/ML	190	770	9900	18000
DIVERSITY: DIVISION	0.0	1.4	1.3	0.2
.CLASS	0.0	1.4	1.3	0.2
..ORDER	0.4	2.1	1.7	0.4
...FAMILY	2.6	2.4	1.9	0.4
....GENUS	3.1	2.6	2.2	1.2

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....CHARACIUM	--	-	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	290	3	--	-
....DICTYOSPHAERIUM	--	-	38	5	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	380	2
....OOCYSTIS	--	-	--	-	--	-	250	1
....TETRAEDRON	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	48	6	--	-	--	-
..TETRASPORALES								
...PALMELLACEAE								
....GLOEOCYSTIS	--	-	38	5	--	-	--	-
....SPHAEROCYSTIS	--	-	160#	21	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	370	4	--	-
..ZYGNEMATALES								
...MESOTAENIACEAE								
....ROYA	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	43	6	3700#	38	12000#	68
....MELOSIRA	14	7	--	-	290	3	4800#	27
....STEPHANODISCUS	--	-	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	29	4	290	3	--	-
....COCCONEIS	--	-	5	1	150	1	--	-
....RHOICOSPHENIA	11	5	--	-	--	-	--	-
...CYMBELLACEAE								
....AMPHORA	21	11	--	-	73	1	--	-
....CYMBELLA	42#	22	10	1	73	1	--	-
...DIATOMACEAE								
....DIATOMA	11	5	--	-	--	-	--	-
...EUNOTIACEAE								
....EUNOTIA	--	-	--	-	--	-	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	--	-	220	2	--	-
....FRAGILARIA	--	-	--	-	--	-	--	-
....HANNAEA	--	-	--	-	--	-	--	-
....SYNEDRA	21	11	--	-	150	1	--	-
...GOMPHONEMATACEAE								
....GOMPHONEIS	32#	16	--	-	--	-	--	-
....GOMPHONEMA	--	-	--	-	150	1	--	-
...NAVICULACEAE								
....NAVICULA	28	15	14	2	--	-	250	1
....PINNULARIA	11	5	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	--	-	5	1	--	-	130	1
...SURIRELLACEAE								
....SURIRELLA	4	2	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROCCOCCALES								
...CHROCCOCCAEAE								
....ANACYSTIS	--	-	38	5	4100#	41	--	-
..HORMOGONALES								
...OSCILLATORIACEAE	--	-	--	-	--	-	--	-
...RIVULARIACEAE								
....CALOTHRIX	--	-	340#	44	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

NEHALEM RIVER BASIN

14301000 NEHALEM RIVER NEAR FOSS, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	LENGTH OF EXPO-SURE (DAYS)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)
JUL				
06...	34	801	.196	.034
20...	15	640	1.24	.175

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.5	15.5	10.5	9.5	2.0	1.5	3.5	3.5	4.0	3.5	6.5	5.5
2	16.5	15.5	11.0	10.0	2.0	1.0	4.0	3.5	3.5	3.0	6.5	5.5
3	15.5	14.5	10.5	10.0	2.5	1.5	3.5	3.5	4.0	3.0	6.5	5.5
4	15.0	14.0	10.5	9.5	3.0	2.0	4.0	3.5	4.5	3.5	7.0	5.5
5	14.5	13.0	10.5	9.5	4.5	3.0	3.5	2.0	4.5	4.0	6.5	5.0
6	14.5	13.0	10.5	9.0	5.0	4.0	2.0	1.0	5.5	4.5	7.0	5.0
7	15.0	13.5	10.5	9.5	6.0	4.5	1.0	0.5	5.0	4.5	7.0	5.5
8	14.5	14.0	11.0	9.5	6.5	6.0	0.5	0.0	5.0	4.5	6.5	5.5
9	15.0	13.5	10.5	9.5	6.0	5.5	0.5	0.0	6.0	4.5	6.5	5.5
10	15.5	14.0	10.5	9.5	6.0	5.0	1.5	0.0	7.0	5.5	6.5	5.5
11	16.0	14.5	10.5	9.0	5.0	4.5	2.0	1.5	7.0	6.0	6.5	5.5
12	15.0	14.0	9.5	8.5	5.0	4.0	3.0	2.0	7.5	6.0	6.5	5.5
13	14.5	13.0	8.5	8.0	5.5	5.0	3.5	3.0	7.5	6.0	6.0	5.5
14	14.0	12.0	9.0	8.0	6.0	5.0	4.5	3.5	6.5	6.0	5.5	5.0
15	13.0	11.5	9.5	8.5	7.0	6.0	5.5	4.5	6.5	5.5	6.5	5.0
16	13.0	11.0	10.5	9.0	7.0	6.5	5.5	5.0	7.0	6.0	6.5	5.5
17	12.0	10.5	11.0	10.0	7.5	7.0	6.0	4.5	8.0	6.5	6.5	5.5
18	11.5	10.0	10.0	8.5	7.0	6.0	7.0	6.0	7.5	6.0	7.0	5.5
19	11.0	9.5	9.0	7.5	6.0	5.0	6.5	6.0	7.5	6.5	7.0	6.5
20	10.5	8.5	8.0	7.0	5.0	4.5	6.5	6.0	7.5	7.0	7.0	5.5
21	10.0	8.5	8.5	7.5	4.5	4.5	6.5	6.0	7.0	6.0	8.0	6.0
22	9.5	8.5	8.0	7.0	4.5	4.5	5.5	4.5	6.5	5.5	8.0	6.5
23	10.0	9.0	7.0	6.5	5.0	4.5	4.5	3.5	6.0	5.5	8.0	7.0
24	10.5	9.5	7.5	6.5	5.0	4.5	3.5	3.0	6.5	5.5	8.0	6.0
25	11.0	10.0	8.0	7.0	5.5	4.5	3.0	2.5	5.5	5.5	7.5	6.5
26	11.0	10.0	8.0	5.5	7.0	6.0	2.5	1.5	6.0	5.0	8.0	6.5
27	11.0	9.5	5.5	4.0	7.5	6.5	2.0	1.5	7.0	5.5	8.0	5.5
28	10.5	10.0	4.0	3.0	6.5	6.0	1.5	1.0	7.0	5.5	6.5	6.0
29	10.5	9.5	3.5	2.5	6.0	5.5	2.0	1.0	---	---	6.5	5.5
30	9.5	8.5	3.0	2.0	5.5	4.5	2.0	1.0	---	---	7.5	6.0
31	10.5	9.5	---	---	4.5	3.5	3.5	2.0	---	---	7.0	6.0
MONTH	17.5	8.5	11.0	2.0	7.5	1.0	7.0	0.0	8.0	3.0	8.0	5.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	6.0	15.0	14.0	11.5	10.5	19.5	18.0	22.5	20.5	17.0	15.0
2	7.5	5.5	14.0	11.5	12.0	10.5	18.0	16.0	22.5	20.5	16.0	15.5
3	9.0	7.0	12.0	10.5	11.5	10.5	16.5	15.5	23.0	20.5	16.5	15.5
4	10.0	8.0	11.0	10.0	11.5	10.5	16.0	15.0	22.5	20.0	16.0	15.0
5	10.5	8.5	11.0	9.5	14.5	10.5	16.0	13.5	22.5	20.0	16.0	14.5
6	11.5	9.0	11.5	8.5	15.0	12.5	17.5	13.5	23.0	20.5	16.0	14.5
7	11.0	10.0	11.5	10.0	15.5	13.0	19.0	15.5	22.5	20.5	16.0	14.5
8	11.0	10.0	12.0	10.5	14.5	13.5	18.5	16.0	23.0	20.5	16.0	14.5
9	10.5	9.5	13.5	11.0	15.0	12.5	17.0	16.0	23.5	20.5	16.0	14.5
10	10.0	8.5	13.0	10.5	15.5	13.0	17.0	15.0	23.5	20.0	16.0	15.0
11	11.5	9.0	11.5	10.5	15.0	13.5	18.0	16.0	23.5	20.5	16.5	15.0
12	11.0	9.5	12.0	10.5	14.5	13.0	16.5	16.0	24.5	21.5	16.5	14.5
13	10.5	9.5	12.0	11.0	15.0	13.0	16.5	15.0	23.0	20.0	---	---
14	10.0	8.5	11.5	11.0	16.0	13.5	18.5	15.5	23.0	20.0	---	---
15	10.0	9.5	11.5	10.5	17.0	14.5	20.0	16.5	23.5	20.5	---	---
16	10.0	8.5	11.0	10.5	18.0	15.0	20.0	18.5	23.5	20.5	---	---
17	10.0	8.5	11.0	10.0	18.0	16.0	19.5	17.5	23.5	20.5	---	---
18	9.5	8.0	11.0	10.0	18.0	16.0	18.0	16.0	21.5	20.0	---	---
19	10.5	8.0	12.0	9.5	17.5	16.0	19.0	15.5	20.5	20.0	---	---
20	10.5	9.0	12.0	11.0	17.0	16.0	18.5	16.0	20.0	19.5	---	---
21	10.5	9.5	13.0	11.5	16.0	15.5	19.5	15.0	19.5	17.0	---	---
22	12.0	9.5	12.5	11.0	18.0	15.5	20.5	16.5	20.0	18.0	---	---
23	13.0	11.0	12.5	10.5	18.5	16.0	21.0	17.5	18.5	18.0	---	---
24	13.0	11.5	13.5	11.0	19.0	16.0	21.5	17.5	18.0	15.5	---	---
25	13.5	12.0	12.5	11.0	19.0	17.5	21.0	19.5	16.5	15.5	---	---
26	13.5	11.5	12.0	11.0	19.0	15.5	19.5	18.0	17.5	14.0	---	---
27	14.0	11.0	12.0	10.5	19.0	15.5	19.0	17.5	16.5	15.5	---	---
28	14.0	12.0	11.5	10.5	20.0	16.0	19.0	18.0	16.0	15.5	---	---
29	14.5	12.0	11.5	10.5	19.5	16.0	20.0	18.0	16.0	15.0	---	---
30	15.5	13.0	11.5	10.5	20.5	17.0	21.0	18.0	15.5	14.5	---	---
31	---	---	11.0	10.5	---	---	22.0	20.0	16.5	14.0	---	---
MONTH	15.5	5.5	15.0	8.5	20.5	10.5	22.0	13.5	24.5	14.0	17.0	14.5

14301500 WILSON RIVER NEAR TILLAMOOK, OR

LOCATION.--Lat 45°29'05", long 123°41'20", in SW¼SE¼ sec.8, T.1 S., R.8 W., Tillamook County, Hydrologic Unit 17100203, on right bank 0.2 mi (0.3 km) upstream from Negro Jack Creek, 8.0 mi (12.9 km) east of Tillamook, and at mile 11.4 (18.3 km).

DRAINAGE AREA.--161 mi^2 (417 km^2), at cableway, 2.0 mi (3.2 km) downstream, where all discharge measurements are made.

PERIOD OF RECORD.--October 1914 to September 1915, August to November 1916, July 1931 to current year. Prior to January 1915 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1398: 1953. WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 71.89 ft (21.912 m) above mean sea level. Dec. 18, 1914, to Nov. 4, 1916, nonrecording gage at site 2.8 mi (4.5 km) downstream at different datum. July 30, 1931, to Sept. 30, 1938, nonrecording gage at site 2.82 mi (4.54 km) downstream at datum 28.83 ft (8.787 m) lower. Oct. 1, 1938, to Oct. 17, 1968, water-stage recorder at site 2.1 mi (3.4 km) downstream at datum 29.76 ft (9.071 m) lower.

REMARKS.--Records good. No regulation. Small diversions for domestic use above station.

AVERAGE DISCHARGE.--47 years (water years 1915, 1932-77), 1,215 ft^3/s (34.41 m^3/s), 102.48 in/yr (2,603 mm/yr), 880,300 acre-ft/yr (1.09 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,000 ft^3/s (1,020 m^3/s) Jan. 20, 1972, gage height, 16.91 ft (5.154 m); maximum gage height, 20.26 ft (6.175 m) Dec. 22, 1964 (site and datum then in use); minimum discharge, 32 ft^3/s (0.91 m^3/s) Sept. 5, 1973, but may have been less for short period following a landslide Jan. 31, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in February 1916 reached a stage of 20.8 ft (6.34 m), from floodmarks, site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,680 ft^3/s (189 m^3/s) Mar. 7, gage height, 10.23 ft (3.118 m), no peak above base of 12,000 ft^3/s (340 m^3/s); minimum, 56 ft^3/s (1.59 m^3/s) Oct. 19-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	782	174	451	341	4260	1340	298	1270	174	84	243
2	73	387	165	458	300	3170	1220	356	1050	172	83	208
3	79	283	162	410	263	2870	1090	716	913	176	83	286
4	74	232	157	378	263	2220	989	994	1140	179	81	1020
5	71	198	152	348	249	1710	963	1030	1040	169	82	918
6	68	174	149	317	241	1580	958	860	874	165	82	538
7	64	157	158	305	232	3310	938	720	751	155	80	398
8	59	137	286	276	222	5370	913	650	654	149	79	317
9	59	133	514	258	218	5280	846	567	585	145	77	274
10	64	131	407	256	293	3310	742	531	524	145	73	241
11	67	125	333	267	348	2460	658	497	483	141	70	218
12	65	119	288	333	451	2240	600	464	448	139	69	198
13	63	115	256	418	589	1920	615	427	418	142	66	181
14	62	141	236	433	517	1720	578	424	389	134	65	172
15	61	258	236	461	454	1550	567	493	365	127	68	167
16	61	436	234	480	418	1440	563	534	346	124	68	176
17	60	493	230	451	389	1310	520	545	322	125	67	165
18	57	611	247	439	356	1320	493	531	307	128	65	196
19	56	464	236	418	333	1360	464	514	293	122	70	451
20	56	381	222	395	365	1320	436	470	286	114	70	662
21	56	320	214	370	477	1220	424	464	281	112	72	768
22	58	281	208	343	1190	1200	418	427	267	110	73	619
23	58	252	226	322	1200	1220	398	404	249	104	87	589
24	76	245	226	300	943	1310	387	384	236	100	141	662
25	269	260	272	283	943	1200	384	370	224	99	171	823
26	241	230	1120	269	1220	1210	375	451	216	104	226	846
27	158	212	1670	256	2010	2240	351	500	206	96	157	691
28	128	208	1060	245	4040	2080	333	623	198	98	241	578
29	114	192	768	236	---	1800	317	634	189	96	335	556
30	103	181	611	226	---	1570	305	592	183	93	600	500
31	473	---	510	269	---	1410	---	782	---	87	359	---
TOTAL	3018	8138	11727	10671	18865	66180	19185	17252	14707	4024	3944	13661
MEAN	97.4	271	378	344	674	2135	640	557	490	130	127	455
MAX	473	782	1670	480	4040	5370	1340	1030	1270	179	600	1020
MIN	56	115	149	226	218	1200	305	298	183	87	65	165
CFSM	.61	1.68	2.35	2.14	4.19	13.3	3.98	3.46	3.04	.81	.79	2.83
IN.	.70	1.88	2.71	2.47	4.36	15.29	4.43	3.99	3.40	.93	.91	3.16
AC-FT	5990	16140	23260	21170	37420	131300	38050	34220	29170	7980	7820	27100

CAL YR 1976 TOTAL 314776 MEAN 860 MAX 8960 MIN 56 CFSM 5.34 IN 72.73 AC-FT 624400
WTR YR 1977 TOTAL 191372 MEAN 524 MAX 5370 MIN 56 CFSM 3.26 IN 44.22 AC-FT 379600

14302800 MCGUIRE LAKE NEAR FAIRDALE, OR

LOCATION.--Lat 45°18'30", long 123°24'30", in NW¼SE¼ sec.15, T.3 S., R.6 W., Yamhill County, Hydrologic Unit 17100203, on control tower in reservoir on Nestucca River, 0.3 mi (0.5 km) upstream from Walker Creek, and 5.0 mi (8.0 km) southwest of Fairdale.

DRAINAGE AREA.--2.85 mi^2 (7.38 km^2).

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level.

REMARKS.--Reservoir is formed by earthfill dam with ungated spillway. Capacity of reservoir is 3,840 acre-ft (4.73 hm^3) between elevations 1,810.0 ft (551.69 m) and 1,865.5 ft (568.60 m). Dead storage negligible. Under normal operation, reservoir is filled in the spring (April or May) and drained when fall rains start. There is no planned storage during winter months; however, during periods of heavy runoff, inflow may be greater than capacity of outlet tunnel and there may be temporary storage. Water is used during summer months for municipal supply of city of McMinnville.

COOPERATION.--Elevation and capacity table furnished by city of McMinnville, Water and Light Department.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 3,890 acre-ft (4.80 hm^3) Mar. 12, 1972, Feb. 19, Mar. 28, 1974, elevation, 1,865.8 ft (568.70 m); no contents most of time during winter months.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 3,320 acre-ft (4.09 hm^3) July 14-23, elevation, 1,861.8 ft (567.48 m); minimum observed, reservoir empty Dec. 8-16.

MONTHEND ELEVATION AND CONTENTS AT 0900, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	1,858.9	2,960	-
Oct. 31	1,857.0	2,730	-230
Nov. 30	1,838.7	1,110	-1,620
Dec. 31	1,817.7	168	-942
CAL YR 1976	-	-	-1,170
Jan. 31	1,825.0	395	+227
Feb. 28	1,832.7	742	+347
Mar. 31	1,853.5	2,360	+1,620
Apr. 30	1,857.0	2,730	+370
May 31	1,859.8	3,070	+340
June 30	1,861.4	3,270	+200
July 31	1,861.0	3,220	-50
Aug. 31	1,858.2	2,870	-350
Sept.30	1,859.1	2,980	+110
WTR YR 1977	-	-	+20

14302900 NESTUCCA RIVER NEAR FAIRDALE, OR

LOCATION.--Lat 45°18'40", long 123°25'05", in SW¼NW¼ sec.15, T.3 S., R.6 W., Yamhill County, Hydrologic Unit 17100203, on right bank 100 ft (30 m) upstream from former Meadow Lake, 0.4 mi (0.6 km) downstream from Walker Creek, 5.3 mi (8.5 km) southwest of Fairdale, and at mile 49.3 (79.3 km).

DRAINAGE AREA.--6.18 mi² (16.01 km²).

PERIOD OF RECORD.--June 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,778.99 ft (542.236 m) above mean sea level (levels by city of McMinnville).

REMARKS.--Records good. Flow regulated since March 1969 by McGuire Lake about 1 mi (1.6 km) above station (see station 14302800); during winter months lake is empty except when inflow exceeds capacity of outlet tunnel.

AVERAGE DISCHARGE.--16 years (water years 1961-75, 1977), 32.4 ft³/s (0.918 m³/s), 71.20 in/yr (1,808 mm/yr), 23,470 acre-ft/yr (28.9 hm³/yr), adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 876 ft³/s (24.8 m³/s) Dec. 22, 1964, gage height, 10.43 ft (3.179 m); minimum, 0.76 ft³/s (0.022 m³/s) Aug. 9, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 181 ft³/s (5.13 m³/s) Mar. 8, gage height, 4.47 ft (1.362 m); minimum, 0.91 ft³/s (0.026 m³/s) Oct. 21, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	16	83	3.6	3.7	70	17	4.3	13	2.0	2.6	3.3
2	1.5	14	80	3.9	3.3	48	15	5.8	9.9	2.0	2.7	3.2
3	1.5	15	75	3.6	3.1	40	13	12	9.9	1.9	2.7	3.6
4	1.3	17	68	3.5	3.1	29	12	12	10	2.0	2.7	4.3
5	1.3	17	60	3.2	3.1	22	11	9.9	8.4	2.2	2.7	3.6
6	1.3	17	51	3.1	3.0	22	10	8.4	7.5	2.1	2.9	3.2
7	1.3	17	28	3.1	2.9	82	9.4	7.9	6.8	1.8	2.9	3.0
8	1.3	17	14	3.1	2.7	107	8.9	7.7	6.2	1.6	3.0	2.9
9	1.2	19	13	3.1	2.7	90	8.4	6.8	5.8	1.6	3.0	2.7
10	1.2	23	7.9	3.1	4.0	52	7.7	7.0	5.5	1.6	3.0	2.6
11	1.2	23	6.6	3.6	3.6	36	7.0	6.4	5.3	1.5	3.1	2.6
12	1.1	23	5.8	5.3	3.6	30	6.4	6.0	4.9	1.5	3.1	2.5
13	1.1	23	5.5	12	3.6	23	6.6	5.6	4.6	1.5	3.1	2.4
14	1.1	24	4.3	8.6	3.3	20	6.0	5.6	4.3	1.4	3.1	2.4
15	1.1	26	3.0	7.2	3.2	17	6.0	6.6	4.0	1.6	3.2	2.4
16	1.1	25	3.0	6.4	3.1	16	5.8	6.8	3.9	2.0	3.1	2.5
17	1.1	25	3.0	5.6	3.0	14	5.5	6.6	3.6	2.1	3.5	2.5
18	1.0	30	3.0	5.3	2.9	18	5.1	6.0	3.5	2.4	3.7	3.7
19	1.1	34	3.0	4.9	2.7	19	4.9	5.6	3.2	2.2	3.9	8.4
20	1.1	34	3.0	4.5	4.6	18	4.8	5.3	3.2	2.5	3.9	7.9
21	1.1	33	3.0	4.1	8.6	17	5.1	5.1	3.3	3.1	3.9	6.4
22	1.0	32	3.0	3.9	18	16	4.8	4.9	3.2	3.1	3.7	4.9
23	.98	32	3.0	3.7	13	17	4.5	4.8	2.9	3.0	3.5	6.0
24	1.2	32	3.0	3.6	11	18	4.3	4.8	2.7	2.9	3.9	7.0
25	8.2	32	3.5	3.5	15	16	4.8	5.1	2.7	2.9	5.6	6.8
26	14	31	9.6	3.5	17	15	4.6	7.7	2.4	3.0	5.6	5.6
27	12	30	8.4	3.3	26	30	4.3	7.7	2.3	3.0	3.6	4.9
28	13	30	5.8	3.3	62	25	4.1	7.9	2.3	3.0	4.5	4.8
29	13	49	4.9	3.3	---	22	4.0	7.0	2.2	2.7	4.5	5.8
30	13	86	4.3	3.3	---	19	4.0	7.0	2.1	2.6	5.8	5.3
31	17	---	3.9	3.7	---	17	---	12	---	2.6	3.9	---
TOTAL	118.68	826	572.5	135.9	235.8	985	215.0	216.3	149.6	69.4	110.4	127.2
MEAN	3.83	27.5	18.5	4.38	8.42	31.8	7.17	6.98	4.99	2.24	3.56	4.24
MAX	17	86	83	12	62	107	17	12	13	3.1	5.8	8.4
MIN	.98	14	3.0	3.1	2.7	14	4.0	4.3	2.1	1.4	2.6	2.4
AC-FT	235	1640	1140	270	468	1950	426	429	297	138	219	252
MEAN†	1.85	.34	3.22	8.10	14.6	58.1	13.4	12.5	8.37	2.03	.21	6.10
CFSM†	.30	.06	.52	1.31	2.36	9.40	2.17	2.02	1.35	.33	.03	.99
IN.†	.34	.06	.60	1.51	2.45	10.80	2.41	2.33	1.51	.38	.04	1.10
AC-FT†	114	20	198	497	810	3,570	796	769	497	125	13	362

CAL YR 1976 TOTAL 7,915.77 MEAN 21.6 MAX 266 MIN .91 AC-FT 15,700 MEAN† 22.4 CFSM† 3.62 IN.† 49.25 AC-FT† 16,280
WTR YR 1977 TOTAL 3,761.78 MEAN 10.3 MAX 107 MIN .98 AC-FT 7,460 MEAN† 10.7 CFSM† 1.73 IN.† 23.53 AC-FT† 7,770

† Adjusted for storage and diversion by McGuire Lake.

14303600 NESTUCCA RIVER NEAR BEAVER, OR

LOCATION.--Lat 45°16'00", long 123°50'45", in SE¼NE¼ sec.36, T.3 S., R.10 W., Tillamook County, Hydrologic Unit 17100203, on right bank 150 ft (46 m) upstream from Saling Creek, 1.2 mi (1.9 km) southwest of Beaver, and at mile 13.5 (21.7 km).

DRAINAGE AREA.--180 mi² (466 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 43 ft (13 m), from river profile map.

REMARKS.--Water-discharge records good. No regulation. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--13 years, 1,127 ft³/s (31.92 m³/s), 85.03 in/yr (2,160 mm/yr), 816,500 acre-ft/yr (1.01 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,400 ft³/s (833 m³/s) Jan. 11, 1972, gage height, 22.0 ft (6.71 m), from floodmark; minimum, 32 ft³/s (0.91 m³/s) Sept. 14, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 20, 1962, reached a stage of 23.4 ft (7.13 m), discharge, 32,500 ft³/s (920 m³/s), caused by failure of Meadow Lake Dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,260 ft³/s (121 m³/s) Mar. 8, gage height, 7.35 ft (2.240 m), no peak above base of 8,000 ft³/s (227 m³/s); minimum, 59 ft³/s (1.67 m³/s) Oct. 18, 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	424	235	302	249	3810	1360	303	919	180	96	215
2	80	263	222	354	214	3000	1220	423	812	178	94	189
3	105	202	218	322	198	2870	1110	674	796	180	94	297
4	91	174	210	302	194	2270	998	741	1020	186	94	734
5	80	170	206	277	191	1800	902	772	877	175	94	625
6	76	167	191	258	184	1630	828	704	788	172	91	437
7	70	154	184	249	180	2560	772	639	719	166	89	343
8	68	145	263	235	177	3700	749	590	646	161	89	284
9	68	142	388	218	174	3960	711	551	590	161	84	242
10	76	142	287	235	198	3150	653	544	551	158	79	215
11	80	142	235	235	210	2560	604	512	519	153	75	192
12	74	139	218	267	235	2480	564	478	485	150	72	183
13	72	139	180	382	302	2150	611	450	450	150	72	175
14	68	160	180	400	263	2060	557	430	417	145	72	169
15	66	235	180	365	235	1880	551	493	391	140	72	166
16	66	282	170	343	227	1680	538	525	367	137	70	180
17	64	302	167	317	227	1510	500	557	349	143	68	175
18	61	333	177	312	214	1500	478	525	338	156	68	215
19	59	277	167	302	206	1500	450	485	321	140	70	512
20	61	244	157	287	287	1400	437	457	310	134	72	674
21	61	227	154	272	360	1280	430	464	303	127	75	704
22	61	214	151	263	666	1180	410	423	284	124	77	570
23	62	202	174	249	659	1150	385	404	260	121	86	570
24	86	206	174	240	550	1120	367	398	242	119	161	764
25	272	222	198	227	723	1010	361	385	226	116	189	726
26	231	202	493	222	940	1020	343	519	220	119	338	653
27	151	191	748	214	1420	1930	326	525	210	113	169	584
28	127	184	525	210	3000	1830	315	564	195	110	248	525
29	121	180	424	202	---	1700	310	538	189	107	367	519
30	110	206	371	194	---	1530	297	519	186	104	551	525
31	282	---	333	206	---	1410	---	711	---	99	326	---
TOTAL	3019	6270	7980	8461	12683	62630	18137	16303	13980	4424	4202	12362
MEAN	97.4	209	257	273	453	2020	605	526	466	143	136	412
MAX	282	424	748	400	3000	3960	1360	772	1020	186	551	764
MIN	59	139	151	194	174	1010	297	303	186	99	68	166
CFSM	.54	1.16	1.43	1.52	2.52	11.2	3.36	2.92	2.59	.79	.76	2.29
IN.	.62	1.30	1.65	1.75	2.62	12.94	3.75	3.37	2.89	.91	.87	2.55
AC-FT	5990	12440	15830	16780	25160	124200	35970	32340	27730	8780	8330	24520

CAL YR 1976 TOTAL 280209 MEAN 766 MAX 6300 MIN 59 CFSM 4.26 IN 57.91 AC-FT 555800
WTR YR 1977 TOTAL 170451 MEAN 467 MAX 3960 MIN 59 CFSM 2.59 IN 35.23 AC-FT 338100

14303600 NESTUCCA RIVER NEAR BEAVER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1964 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 24.0°C July 1-3, 1967; minimum, 1.0°C sometime during period Dec. 28, 1968, to Feb. 8, 1969.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 22.0°C Aug. 1; minimum, 3.0°C Jan. 8-10.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.0	15.5	10.5	10.0	5.0	4.5	5.0	5.0	5.5	5.0	8.0	8.0
2	16.0	15.0	10.5	10.0	5.0	4.5	5.5	5.0	5.5	5.0	8.0	7.0
3	15.0	14.5	10.5	10.0	5.0	5.0	5.5	5.5	5.5	5.0	8.0	7.0
4	14.5	13.5	10.0	10.0	5.5	5.0	5.5	5.5	6.0	5.5	8.0	7.0
5	14.0	13.5	10.0	10.0	5.5	5.0	5.5	4.5	6.0	6.0	8.0	7.0
6	14.0	13.5	10.0	10.0	5.5	5.5	4.5	4.0	6.5	6.0	7.0	7.0
7	14.5	13.5	10.0	10.0	6.0	5.5	4.0	3.5	6.5	6.5	7.0	7.0
8	14.5	14.0	10.0	10.0	6.0	6.0	3.5	3.0	6.5	6.5	7.0	7.0
9	14.5	14.0	10.0	10.0	6.0	5.5	3.0	3.0	7.0	6.5	7.0	6.5
10	14.0	14.0	10.0	10.0	5.5	5.5	3.5	3.0	8.0	7.0	6.5	6.5
11	15.0	14.0	10.0	10.0	5.5	5.0	4.0	3.5	8.0	7.0	6.5	6.5
12	15.0	14.0	10.0	9.5	5.0	4.5	4.5	4.0	8.0	7.0	6.5	6.0
13	14.5	13.5	10.0	9.5	5.5	5.0	5.0	4.5	8.0	7.0	6.0	5.5
14	13.5	13.5	9.5	9.5	5.5	5.5	5.0	5.0	8.0	7.0	6.0	5.5
15	13.5	13.5	9.5	9.5	5.5	5.5	6.0	5.0	7.0	7.0	6.0	5.5
16	13.5	13.0	10.0	9.5	5.5	5.5	6.0	6.0	7.0	7.0	6.0	5.5
17	13.0	11.5	10.0	10.0	5.5	5.0	6.5	6.0	8.0	7.0	6.0	5.5
18	11.5	10.5	10.0	9.5	5.0	4.5	7.0	6.5	8.0	7.0	6.0	6.0
19	10.5	10.0	9.5	9.0	4.5	4.0	7.0	7.0	8.0	7.0	6.5	6.0
20	10.0	9.5	9.0	8.5	4.0	3.5	7.0	7.0	8.0	7.0	6.5	6.0
21	10.0	9.5	9.0	9.0	3.5	3.5	7.0	7.0	8.0	7.0	6.5	6.0
22	10.0	10.0	9.0	8.5	3.5	3.5	8.0	7.0	7.0	7.0	6.5	6.0
23	10.0	10.0	9.0	8.5	4.0	3.5	7.0	6.5	7.0	7.0	6.5	6.5
24	10.0	10.0	8.5	8.0	4.0	4.0	6.5	6.0	7.0	7.0	6.5	6.0
25	10.0	10.0	8.5	8.0	4.5	4.0	6.0	6.0	7.0	7.0	6.5	6.0
26	10.5	10.0	8.0	6.5	5.0	4.5	6.0	5.5	8.0	7.0	6.5	6.0
27	10.5	10.0	6.5	5.5	5.5	5.0	5.5	5.0	8.5	8.0	6.5	6.0
28	10.0	10.0	5.5	5.0	5.5	5.0	5.0	4.5	8.5	8.0	6.0	6.0
29	10.0	10.0	5.0	4.5	5.5	5.5	4.5	4.5	---	---	6.5	6.0
30	10.0	9.5	5.0	4.5	5.5	5.5	4.5	4.5	---	---	7.0	6.0
31	10.5	9.5	---	---	5.5	5.0	5.0	4.5	---	---	7.0	7.0
MONTH	16.0	9.5	10.5	4.5	6.0	3.5	8.0	3.0	8.5	5.0	8.0	5.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	7.0	14.0	13.5	11.0	11.0	18.5	18.0	22.0	20.5	---	---
2	7.0	7.0	13.5	13.0	11.0	10.5	19.0	17.0	21.5	20.0	---	---
3	8.0	7.0	13.0	11.5	11.0	10.5	17.0	16.0	20.5	19.5	---	---
4	8.5	7.0	11.5	11.0	11.0	10.5	16.0	15.0	20.5	19.5	---	---
5	8.5	8.0	11.5	10.5	13.5	11.0	15.0	15.0	19.5	19.0	---	---
6	9.0	8.5	11.5	11.0	14.5	14.5	16.5	14.5	19.5	19.0	---	---
7	9.0	8.5	11.5	10.5	14.5	14.0	18.0	15.5	19.5	19.0	13.5	12.5
8	8.5	8.5	12.0	11.0	14.0	13.5	17.0	15.5	20.0	19.0	14.0	11.0
9	8.5	8.0	12.0	11.0	14.5	13.0	15.5	15.5	20.0	19.0	14.5	11.5
10	8.0	7.0	12.0	11.5	14.0	13.5	16.0	14.5	20.0	19.0	15.0	11.5
11	9.0	8.0	11.5	11.0	14.0	14.0	16.0	15.5	19.5	18.5	15.0	11.5
12	8.5	8.0	11.5	10.5	14.0	13.5	16.5	16.0	19.0	18.5	15.5	12.0
13	8.5	8.0	11.5	11.0	14.0	14.0	16.5	16.0	19.0	18.0	14.0	12.5
14	8.0	7.0	11.0	11.0	14.5	14.0	18.5	16.0	18.0	17.0	14.5	12.5
15	8.0	8.0	11.0	10.5	15.5	13.5	19.5	17.0	18.5	18.0	13.0	12.0
16	8.5	8.0	10.5	10.5	16.0	14.5	19.5	18.5	19.0	18.0	12.5	11.5
17	8.5	8.0	10.5	10.5	15.5	15.0	19.0	18.0	18.5	18.5	12.5	11.5
18	9.0	8.0	10.5	10.5	15.0	14.5	19.0	17.0	---	---	12.0	11.5
19	9.0	8.0	12.0	10.5	14.5	14.5	19.5	18.0	---	---	12.5	11.5
20	9.0	8.5	11.5	11.5	14.5	14.5	19.0	18.0	---	---	12.0	11.0
21	9.0	9.0	12.0	11.5	14.5	14.0	20.0	18.0	---	---	12.0	10.5
22	10.5	9.0	11.5	11.5	16.0	14.5	20.5	18.5	---	---	11.0	9.5
23	11.5	10.0	12.0	11.5	16.5	15.0	21.0	19.0	---	---	10.5	10.5
24	11.5	10.5	12.0	11.5	17.0	15.5	20.5	19.5	---	---	11.5	10.0
25	11.5	11.0	11.0	11.0	18.5	16.5	20.5	20.0	---	---	11.5	10.0
26	13.0	11.0	11.0	11.0	18.0	16.0	20.0	19.5	---	---	11.0	9.5
27	13.0	11.5	11.0	11.0	17.0	16.5	20.5	19.5	---	---	11.0	10.0
28	12.0	11.5	11.0	11.0	18.5	17.0	20.5	19.5	---	---	12.0	10.0
29	13.0	11.5	11.0	10.5	18.5	16.5	21.0	19.0	---	---	11.0	10.0
30	14.0	12.0	11.0	11.0	19.0	16.5	21.5	19.5	---	---	11.5	10.0
31	---	---	11.0	11.0	---	---	21.5	20.0	---	---	---	---
MONTH	14.0	7.0	14.0	10.5	19.0	10.5	21.5	14.5	22.0	17.0	15.5	9.5

14305500 SILETZ RIVER AT SILETZ, OR

LOCATION.--Lat 44°42'55", long 123°53'10", in NW¼SW¼ sec.11, T.10 S., R.10 W., Lincoln County, Hydrologic Unit 17100204, on right bank, 1.8 mi (2.9 km) downstream from Baker Creek, 1.5 mi (2.4 km) east of Siletz, and at mile 42.6 (68.5 km).

DRAINAGE AREA.--202 mi² (523 km²).

PERIOD OF RECORD.--October 1905 to November 1911, January to May 1912, January to June 1924, November 1924 to current year. Prior to December 1905 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1935: 1943, 1947-49(M), 1953-58(M).

GAGE.--Water-stage recorder. Datum of gage is 102.32 ft (31.187 m) above mean sea level. Oct. 1, 1905, to Sept. 30, 1938, nonrecording gages at various sites within 2.5 mi (4.0 km) downstream at different datums.

REMARKS.--Records good. Slight regulation from logponds. Small diversions above station for irrigation.

AVERAGE DISCHARGE.--58 years (water years 1906-11, 1924-77), 1,578 ft³/s (44.69 m³/s), 106.09 in/yr (2,695 mm/yr), 1,143,000 acre-ft/yr (1.41 km³/yr).

EXTREMES FOR PERIOD OF RECORD (1905-12, 1924-38).--Maximum discharge, 34,600 ft³/s (980 m³/s) Nov. 22, 1909, gage height, 24.6 ft (7.50 m), site and datum then in use; minimum observed, 51 ft³/s (1.44 m³/s) Dec. 6, 7, 1929.

EXTREMES FOR PERIOD OF RECORD (1938-77).--Maximum discharge, 32,200 ft³/s (912 m³/s) Jan. 28, 1965, gage height, 27.32 ft (8.327 m), present site and datum; minimum, 48 ft³/s (1.36 m³/s) Sept. 25, 26, Oct. 4, 1965, Sept. 28, 29, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 20, 1921, reached a stage of 31.6 ft (9.63 m), at site 2.5 mi (4.0 km) downstream at different datum, from floodmark, discharge, 40,800 ft³/s (1,160 m³/s), from rating curve extended above 17,000 ft³/s (481 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,630 ft³/s (244 m³/s) Mar. 7, gage height, 11.07 ft (3.374 m), no peak above base of 14,000 ft³/s (396 m³/s); minimum, 76 ft³/s (2.15 m³/s) Oct. 19-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	767	230	521	405	7410	1650	387	1240	220	109	233
2	95	464	220	645	347	5090	1490	473	1110	214	107	195
3	121	352	214	590	325	4630	1330	737	1010	211	101	303
4	105	284	208	553	311	3580	1220	902	1320	220	98	639
5	96	246	201	505	299	2760	1140	1080	1190	208	98	676
6	93	220	195	468	292	2370	1090	960	1050	204	98	446
7	88	204	192	446	284	4420	1040	835	931	192	98	347
8	85	192	356	419	276	6420	1050	743	822	187	96	288
9	85	181	608	392	269	5750	1020	669	743	184	95	254
10	91	173	464	392	329	4480	917	621	676	184	90	227
11	98	170	414	410	387	3460	841	590	621	176	85	211
12	91	162	374	505	419	3290	773	532	574	170	83	195
13	88	154	347	895	633	2850	798	500	532	167	82	184
14	85	195	320	982	542	2530	743	495	495	165	82	178
15	83	392	311	847	484	2230	706	579	464	159	82	173
16	83	505	296	761	446	1940	694	639	437	154	82	170
17	82	468	284	676	423	1710	639	639	410	152	80	170
18	79	645	292	621	392	1640	608	639	396	165	79	246
19	76	505	269	579	370	1670	569	590	379	154	82	859
20	76	432	254	537	405	1560	542	542	370	148	83	761
21	76	379	246	500	596	1410	521	553	374	141	83	786
22	76	343	240	468	982	1290	516	510	347	136	85	688
23	76	307	250	437	1050	1290	484	489	325	132	85	651
24	87	284	246	419	1180	1300	464	468	299	127	125	931
25	303	365	284	396	1430	1190	450	450	288	129	176	888
26	246	311	822	379	2310	1130	450	651	273	136	343	773
27	165	280	1310	365	3810	2590	423	688	261	132	195	663
28	141	261	968	347	7840	2450	410	761	250	125	292	590
29	134	250	773	334	---	2150	401	737	240	123	414	516
30	125	240	657	320	---	1890	392	700	233	119	450	489
31	265	---	585	347	---	1690	---	866	---	113	311	---
TOTAL	3484	9731	12430	16056	26836	88170	23371	20025	17660	5047	4369	13730
MEAN	112	324	401	518	958	2844	779	646	589	163	141	458
MAX	303	767	1310	982	7840	7410	1650	1080	1320	220	450	931
MIN	76	154	192	320	269	1130	392	387	233	113	79	170
CFSM	.55	1.60	1.99	2.56	4.74	14.1	3.86	3.20	2.92	.81	.70	2.27
IN.	.64	1.79	2.29	2.96	4.94	16.24	4.30	3.69	3.25	.93	.80	2.53
AC-FT	6910	19300	24650	31850	53230	174900	46360	39720	35030	10010	8670	27230

CAL YR 1976 TOTAL 374212 MEAN 1022 MAX 11800 MIN 76 CFSM 5.06 IN 68.91 AC-FT 742200
WTR YR 1977 TOTAL 240989 MEAN 660 MAX 7840 MIN 76 CFSM 3.27 IN 44.37 AC-FT 477800

14306030 YAQUINA RIVER NEAR CHITWOOD, OR

LOCATION.--Lat 44°39'29", long 123°50'15", in NE¼SW¼ sec.31, T.10 S., R.9 W., Lincoln County, Hydrologic Unit 17100204, on left bank 200 ft (60 m) below Thornton Creek and 1.1 mi (1.8 km) west of Chitwood.

DRAINAGE AREA.--71.0 mi^2 (183.9 km^2).

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 28.43 ft (8.665 m) above mean sea level.

REMARKS.--Records good except those below 20 ft^3/s (0.57 m^3/s), which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--5 years, 253 ft^3/s (7.16 m^3/s), 48.39 in/yr (1,229 mm/yr), 183,300 acre-ft/yr (226 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,150 ft^3/s (174 m^3/s) Nov. 16, 1973, gage height, 14.43 ft (4.398 m); minimum, 2.8 ft^3/s (0.079 m^3/s) Sept. 27, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,270 ft^3/s (36.0 m^3/s) Mar. 1, 9, no peak above base of 3,000 ft^3/s (85.0 m^3/s); maximum gage height, 6.66 ft (2.030 m) Mar. 9; minimum discharge, 6.3 ft^3/s (0.18 m^3/s) Oct. 1, 19-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	36	14	25	26	1170	257	62	155	35	11	17
2	7.3	34	14	29	24	795	222	72	155	34	10	15
3	7.8	25	13	30	22	702	204	115	155	33	10	19
4	7.8	21	13	30	19	539	186	172	169	34	9.6	26
5	7.8	18	13	29	17	392	172	225	155	32	10	25
6	7.8	15	13	28	16	311	158	201	144	29	10	20
7	7.3	15	13	26	15	447	147	169	134	28	10	17
8	6.8	14	21	23	13	853	144	147	124	26	10	15
9	6.8	13	39	23	12	1130	134	132	115	26	10	14
10	7.3	13	29	23	11	1110	120	122	108	26	9.0	13
11	8.4	13	24	24	12	773	112	112	101	24	7.8	13
12	9.0	13	21	29	13	644	106	101	97	23	7.8	13
13	8.4	13	20	66	14	583	108	95	91	22	7.8	12
14	7.3	14	18	91	15	507	99	95	87	21	7.8	12
15	7.3	21	17	68	14	412	95	108	83	20	8.4	13
16	7.3	30	16	56	14	332	91	120	77	19	7.8	13
17	7.3	29	16	48	15	273	85	115	73	18	7.8	13
18	7.3	29	16	42	15	241	83	115	72	20	7.3	21
19	6.3	27	15	39	15	210	79	108	68	18	7.8	62
20	6.3	23	15	36	16	183	77	103	65	17	7.8	58
21	6.3	21	15	34	28	166	77	103	65	16	8.4	60
22	6.3	19	14	32	91	155	73	97	60	15	9.6	51
23	6.3	18	15	30	103	152	72	95	54	15	9.0	46
24	10	17	15	28	232	158	68	91	49	14	16	77
25	28	16	20	27	297	144	68	89	48	15	24	66
26	28	18	51	26	307	139	66	106	46	15	29	54
27	17	16	73	25	329	254	63	117	43	15	20	43
28	14	15	51	24	820	346	62	129	41	13	24	41
29	13	15	38	23	---	346	62	127	39	13	36	36
30	11	15	32	23	---	311	62	122	36	13	27	36
31	15	---	28	24	---	270	---	137	---	12	22	---
TOTAL	303.3	586	712	1061	2525	14048	3352	3702	2709	661	402.7	921
MEAN	9.78	19.5	23.0	34.2	90.2	453	112	119	90.3	21.3	13.0	30.7
MAX	28	36	73	91	820	1170	257	225	169	35	36	77
MIN	6.3	13	13	23	11	139	62	62	36	12	7.3	12
CFSM	.14	.28	.32	.48	1.27	6.38	1.58	1.68	1.27	.30	.18	.43
IN.	.16	.31	.37	.56	1.32	7.36	1.76	1.94	1.42	.35	.21	.48
AC-FT	602	1160	1410	2100	5010	27860	6650	7340	5370	1310	799	1830

CAL YR 1976 TOTAL 69755.8 MEAN 191 MAX 3080 MIN 5.8 CFSM 2.69 IN 36.55 AC-FT 138400
WTR YR 1977 TOTAL 30983.0 MEAN 84.9 MAX 1170 MIN 6.3 CFSM 1.20 IN 16.23 AC-FT 61450

14306100 NORTH FORK ALSEA RIVER AT ALSEA, OR

LOCATION.--Lat 44°22'45", long 123°35'40", in SE¼ sec.1, T.14 S., R.8 W., Benton County, Hydrologic Unit 17100205, on left bank at Alsea, 0.2 mi (0.3 km) upstream from bridge on Lobster Valley Road, 0.7 mi (1.1 km) upstream from confluence with South Fork, and at mile 49.4 (79.5 km).

DRAINAGE AREA.--63.0 mi² (163 km²).

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 272.31 ft (83.000 m) above mean sea level.

REMARKS.--Records good. No regulation. Some diversions by pumping above station.

AVERAGE DISCHARGE.--20 years, 286 ft³/s (8.100 m³/s), 61.65 in/yr (1,566 mm/yr), 207,200 acre-ft/yr (255 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,100 ft³/s (399 m³/s) Dec. 22, 1964, gage height, 14.57 ft (4.441 m), from rating curve extended above 2,900 ft³/s (82.1 m³/s) on basis of slope-area measurement at gage height 11.80 ft (3.597 m); minimum, 12 ft³/s (0.34 m³/s) Sept. 25, Oct. 2, 1965, Aug. 11, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,340 ft³/s (37.9 m³/s) Mar. 7, gage height, 4.61 ft (1.405 m), no peak above base of 2,000 ft³/s (56.6 m³/s); minimum, 12 ft³/s (0.34 m³/s) Aug. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	72	24	36	26	826	191	62	94	32	19	26
2	20	50	24	43	25	617	175	67	85	31	18	24
3	24	40	24	42	25	602	160	115	85	31	18	25
4	23	33	24	42	24	447	148	139	105	32	18	30
5	20	30	23	40	24	325	141	132	97	31	18	33
6	20	27	23	37	24	293	132	113	89	30	18	29
7	19	26	23	36	23	746	125	101	80	30	17	25
8	19	25	34	36	23	974	128	97	74	29	17	25
9	20	25	68	36	23	902	119	89	69	29	15	23
10	24	25	47	33	23	687	109	83	65	30	14	22
11	26	25	39	36	23	508	101	80	62	30	14	22
12	23	24	34	45	23	486	96	75	60	29	14	21
13	21	25	31	81	23	432	97	70	57	29	13	21
14	21	30	29	89	23	363	90	70	54	29	14	21
15	21	37	29	66	21	307	89	72	53	27	15	22
16	21	43	27	55	20	255	85	78	50	25	14	25
17	21	40	26	47	20	221	80	80	49	25	15	26
18	21	52	26	43	19	204	77	78	47	26	15	33
19	20	43	25	40	19	196	75	75	46	25	16	109
20	20	37	24	37	23	183	74	70	45	24	16	165
21	20	34	24	36	42	167	72	69	46	23	17	70
22	20	33	23	33	130	155	70	64	43	21	18	47
23	21	30	26	33	115	170	67	65	42	21	18	43
24	29	30	24	31	260	178	65	62	39	21	31	50
25	76	31	29	30	257	160	65	59	38	21	33	52
26	52	27	61	30	356	145	64	69	38	24	40	46
27	34	26	83	29	483	236	62	92	36	22	29	41
28	29	26	57	27	908	245	60	96	35	21	30	43
29	27	25	47	27	---	233	59	85	34	21	33	39
30	25	25	42	26	---	207	57	80	33	19	36	35
31	42	---	37	27	---	185	---	89	---	19	30	---
TOTAL	796	996	1057	1249	3005	11655	2933	2576	1750	807	633	1193
MEAN	25.7	33.2	34.1	40.3	107	376	97.8	83.1	58.3	26.0	20.4	39.8
MAX	76	72	83	89	908	974	191	139	105	32	40	165
MIN	17	24	23	26	19	145	57	59	33	19	13	21
CFSM	.41	.53	.54	.64	1.70	5.97	1.55	1.32	.93	.41	.32	.63
IN.	.47	.59	.62	.74	1.77	6.88	1.73	1.52	1.03	.48	.37	.70
AC-FT	1580	1980	2100	2480	5960	23120	5820	5110	3470	1600	1260	2370

CAL YR 1976 TOTAL 70362 MEAN 192 MAX 2580 MIN 17 CFSM 3.05 IN 41.54 AC-FT 139500
WTR YR 1977 TOTAL 28658 MEAN 78.5 MAX 974 MIN 13 CFSM 1.25 IN 16.92 AC-FT 56830

14306400 FIVE RIVERS NEAR FISHER, OR

LOCATION.--Lat 44°20'15", long 123°49'35", W½ sec.19, T.14 S., R.9 W., Lincoln County, Hydrologic Unit 17100205, in Siuslaw National Forest, on left bank at downstream side of abandoned highway bridge, 500 ft (152 m) downstream from Lobster Creek, 3.2 mi (5.1 km) north of Fisher, and at mile 3.3 (5.3 km).

DRAINAGE AREA.--114 mi^2 (295 km^2).

PERIOD OF RECORD.--August 1958 to September 1963, October 1967 to current year.

REVISED RECORDS.--WSP 1718: 1959.

GAGE.--Water-stage recorder. Altitude of gage is 130 ft (39.6 m) from topographic map.

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--15 years, 565 ft^3/s (16.00 m^3/s), 67.30 in/yr (1,709 mm/yr), 409,300 acre-ft/yr (505 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,200 ft^3/s (487 m^3/s) Jan. 21, 1972, gage height, 21.08 ft (6.425 m); minimum, 16 ft^3/s (0.45 m^3/s) Oct. 1, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 22.3 ft (6.80 m), from floodmarks, discharge, 19,000 ft^3/s (538 m^3/s), from rating curve extended above 10,000 ft^3/s (283 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 4,000 ft^3/s (113 m^3/s) and maximum discharge, 4,160 ft^3/s (118 m^3/s) Mar. 7, gage height, 10.60 ft (3.231 m); minimum, 23 ft^3/s (0.65 m^3/s) Oct. 18, 19, Aug. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	188	41	80	58	1740	410	125	172	66	35	37
2	28	108	41	89	57	1220	372	131	154	64	34	32
3	33	82	39	101	54	1100	347	211	148	64	33	33
4	30	66	39	97	54	890	325	211	188	69	33	45
5	28	58	39	96	52	698	305	205	169	67	33	58
6	27	52	38	89	52	635	287	186	154	67	32	43
7	27	49	38	82	51	2140	270	167	144	63	32	35
8	26	46	77	80	51	2880	277	157	134	61	30	32
9	25	43	167	92	51	2450	268	146	127	61	30	30
10	29	41	112	108	52	1740	247	144	119	63	29	29
11	30	39	87	75	57	1300	233	140	115	58	27	28
12	29	38	77	79	55	1230	220	129	114	55	26	27
13	28	38	70	84	55	1110	226	123	106	55	25	27
14	27	49	66	104	52	918	209	125	104	54	25	27
15	27	69	63	103	51	761	201	136	101	52	25	27
16	26	80	60	96	49	638	199	161	96	51	25	28
17	26	74	57	89	49	564	184	155	92	51	23	30
18	25	82	55	84	48	516	176	146	92	51	23	54
19	25	72	54	80	48	468	171	136	91	48	26	263
20	25	64	51	77	66	423	167	127	91	46	26	516
21	25	58	49	74	144	390	163	129	92	45	26	203
22	25	57	48	72	480	365	159	121	87	43	27	119
23	26	52	51	69	397	382	154	123	82	42	26	92
24	37	51	49	66	1190	395	148	121	79	42	58	112
25	142	52	49	63	942	367	148	114	75	42	52	112
26	91	49	94	61	926	340	146	154	74	45	60	97
27	57	46	178	60	926	471	138	188	74	43	45	84
28	45	43	152	58	1870	528	133	213	70	39	38	91
29	41	42	119	57	---	516	133	184	69	38	46	79
30	38	42	99	57	---	462	129	167	67	38	55	80
31	51	---	87	61	---	412	---	171	---	37	45	---
TOTAL	1126	1830	2246	2483	7937	28049	6545	4746	3280	1620	1050	2470
MEAN	36.3	61.0	72.5	80.1	283	905	218	153	109	52.3	33.9	82.3
MAX	142	188	178	108	1870	2880	410	213	188	69	60	516
MIN	25	38	38	57	48	340	129	114	67	37	23	27
CFSM	.32	.54	.64	.70	2.48	7.94	1.91	1.34	.96	.46	.30	.72
IN.	.37	.60	.73	.81	2.59	9.15	2.14	1.55	1.07	.53	.34	.81
AC-FT	2230	3630	4450	4930	15740	55640	12980	9410	6510	3210	2080	4900

CAL YR 1976 TOTAL 131021 MEAN 358 MAX 5110 MIN 25 CFSM 3.14 IN 42.75 AC-FT 259900
WTR YR 1977 TOTAL 63382 MEAN 174 MAX 2880 MIN 23 CFSM 1.53 IN 20.68 AC-FT 125700

14306500 ALSEA RIVER NEAR TIDEWATER, OR

LOCATION.--Lat 44°23'10", long 123°49'50", in NW¼NW¼ sec.6, T.14 S., R.9 W., Lincoln County, Hydrologic Unit 17100205, on right bank 0.9 mi (1.4 km) downstream from Grass Creek, 2.5 mi (4.0 km) upstream from Scott Creek, 3.8 mi (6.1 km) southeast of Tidewater, and at mile 21.0 ((33.8 km).

DRAINAGE AREA.--334 mi^2 (865 km^2).

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 48.16 ft (14.679 m) above mean sea level. Prior to Nov. 16, 1939, nonrecording gage at present site and datum.

REMARKS.--Records excellent. No regulation. Diversion for irrigation above station.

AVERAGE DISCHARGE.--38 years, 1,535 ft^3/s (43.47 m^3/s), 62.41 in/yr (1,585 mm/yr), 1,112,000 acre-ft/yr (1.37 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,800 ft^3/s (1,180 m^3/s) Dec. 22, 1964, gage height, 27.44 ft (8.364 m); minimum, 45 ft^3/s (1.27 m^3/s) Sept. 26, 27, 1965.

EXTREMES OUTSIDE PERIOD UF RECORD.--Flood on or about Feb. 3, 1890, reached a stage of 29.5 ft (8.99 m), from floodmark (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,270 ft^3/s (263 m^3/s) Mar. 8, gage height, 12.12 ft (3.694 m), no peak above base of 13,000 ft^3/s (368 m^3/s); minimum, 62 ft^3/s (1.76 m^3/s) Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	349	121	199	159	4840	1020	334	460	167	90	119
2	86	288	117	218	157	3100	940	343	422	163	86	101
3	95	195	116	244	152	2860	871	499	405	161	85	99
4	98	174	116	237	148	2250	814	602	481	165	83	112
5	92	156	114	232	146	1700	763	610	470	163	82	144
6	87	142	114	215	144	1440	719	555	425	159	82	131
7	86	131	111	202	142	4120	680	492	389	154	82	111
8	83	126	140	178	140	7360	684	460	364	146	79	98
9	80	121	349	197	138	6150	667	422	337	146	78	90
10	85	116	288	213	140	4680	618	405	319	150	72	86
11	93	112	222	195	150	3280	586	396	308	144	68	83
12	93	112	193	206	150	3000	555	370	299	138	66	80
13	87	111	176	247	154	2730	559	355	285	138	65	80
14	85	122	163	364	148	2240	529	352	275	135	63	78
15	83	163	156	322	144	1860	506	364	267	129	65	78
16	83	202	152	277	140	1540	495	415	257	126	65	80
17	82	202	146	249	138	1340	467	412	247	121	65	85
18	80	218	142	232	135	1210	449	405	242	119	63	111
19	78	211	138	218	133	1120	435	383	237	116	65	380
20	76	182	133	208	148	1030	425	358	234	114	67	1010
21	76	167	129	199	259	940	415	349	237	111	68	510
22	76	156	128	193	759	875	405	337	225	107	74	308
23	79	148	131	186	837	905	392	331	215	104	75	244
24	93	140	137	180	1960	965	380	334	206	103	121	269
25	294	150	138	176	1770	890	373	310	197	101	146	277
26	302	146	222	167	1920	828	376	364	193	106	170	259
27	182	135	409	165	1990	1140	361	442	184	107	150	222
28	142	129	376	159	4590	1350	349	548	180	101	126	222
29	128	126	288	157	---	1320	340	481	176	98	148	211
30	117	122	244	154	---	1170	331	432	172	96	172	199
31	131	---	218	157	---	1050	---	439	---	93	152	---
TOTAL	3337	4852	5627	6546	16991	69283	16504	12899	8708	3981	2873	5877
MEAN	108	162	182	211	607	2235	550	416	290	128	92.7	196
MAX	302	349	409	364	4590	7360	1020	610	481	167	172	1010
MIN	76	111	111	154	133	828	331	310	172	93	63	78
CFSM	.32	.49	.55	.63	1.82	6.69	1.65	1.25	.87	.38	.28	.59
IN.	.37	.54	.63	.73	1.89	7.72	1.84	1.44	.97	.44	.32	.65
AC-FT	6620	9620	11160	12980	33700	137400	32740	25590	17270	7900	5700	11660

CAL YR 1976 TOTAL 368925 MEAN 1008 MAX 15000 MIN 76 CFSM 3.02 IN 41.09 AC-FT 731800
WTR YR 1977 TOTAL 157478 MEAN 431 MAX 7360 MIN 63 CFSM 1.29 IN 17.54 AC-FT 312400

14306900 BIG CREEK NEAR ROOSEVELT BEACH, OR

LOCATION.--Lat 44°10'05", long 124°03'55", in SE¼SE¼ sec.13, T.16 S., R.12 W., Lane County, Hydrologic Unit 17100205, on right bank 1.0 mi (1.6 km) downstream from Frying Pan Creek, 2.5 mi (4.0 km) east of Roosevelt Beach.

DRAINAGE AREA.--11.9 mi^2 (30.8 km^2).

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 141 ft (43.0 m) above mean sea level (by barometer).

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--5 years, 95.7 ft^3/s (2.710 m^3/s), 109.21 in/yr (2,774 mm/yr), 69,330 acre-ft/yr (85.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,150 ft^3/s (60.9 m^3/s) Nov. 30, 1975, gage height, 6.90 ft (2.103 m); minimum, 4.5 ft^3/s (0.13 m^3/s) Oct. 18-21, 24, 25, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 477 ft^3/s (13.5 m^3/s) Feb. 28, gage height, 5.24 ft (1.597 m), no peak above base of 800 ft^3/s (22.7 m^3/s); minimum, 5.4 ft^3/s (0.15 m^3/s) Aug. 10-13, 16-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	28	16	23	22	347	98	26	51	17	7.9	13
2	9.0	21	15	28	21	276	88	25	46	16	7.6	12
3	8.7	17	15	28	20	265	83	47	46	16	7.6	25
4	7.6	15	15	27	20	221	77	36	57	16	7.6	46
5	7.2	14	14	25	19	182	72	34	47	15	7.9	30
6	7.2	13	14	24	20	173	68	31	44	15	7.6	22
7	6.9	13	14	23	19	298	64	29	41	14	7.6	18
8	6.6	12	31	23	19	387	66	28	39	14	7.2	15
9	6.6	11	27	22	18	360	61	27	37	14	6.9	14
10	7.2	11	22	22	25	290	56	27	36	14	6.6	13
11	7.2	10	20	25	21	244	53	26	35	13	6.3	12
12	6.9	10	19	28	26	234	51	25	33	13	6.3	11
13	6.6	10	19	42	26	200	54	24	31	13	6.3	10
14	6.3	18	19	37	23	182	48	25	30	12	6.3	10
15	6.3	38	18	34	21	163	46	31	28	12	6.6	11
16	6.3	39	17	32	21	150	45	37	27	11	6.3	12
17	6.3	35	18	31	21	129	41	33	26	12	6.0	12
18	6.0	33	18	31	20	127	39	31	26	12	6.3	29
19	5.7	29	16	30	20	122	38	28	25	11	6.6	83
20	5.7	26	16	28	33	109	37	28	26	10	6.3	81
21	5.7	25	15	28	42	101	36	36	25	10	6.9	53
22	5.7	23	15	26	50	95	35	29	23	10	6.9	41
23	5.7	21	17	26	56	96	33	28	22	9.7	6.9	43
24	17	21	16	25	166	95	32	27	21	9.7	16	42
25	23	23	27	24	185	84	33	30	20	9.7	14	47
26	12	20	35	23	194	80	31	43	20	9.7	14	39
27	9.7	19	31	23	265	109	29	46	19	9.7	9.0	37
28	9.0	18	27	22	451	106	28	43	19	9.4	47	36
29	9.0	17	26	22	---	106	28	40	19	9.4	25	33
30	8.3	17	23	21	---	101	27	39	17	8.7	29	33
31	33	---	23	24	---	96	---	54	---	8.3	16	---
TOTAL	275.6	607	618	827	1844	5528	1497	1013	936	374.3	328.5	883
MEAN	8.89	20.2	19.9	26.7	65.9	178	49.9	32.7	31.2	12.1	10.6	29.4
MAX	33	39	35	42	451	387	98	54	57	17	47	83
MIN	5.7	10	14	21	18	80	27	24	17	8.3	6.0	10
CFSM	.75	1.70	1.67	2.24	5.54	15.0	4.19	2.75	2.62	1.02	.89	2.47
IN.	.86	1.90	1.93	2.59	5.76	17.28	4.68	3.17	2.93	1.17	1.03	2.76
AC-FT	547	1200	1230	1640	3660	10960	2970	2010	1860	742	652	1750

CAL YR 1976 TOTAL 24601.3 MEAN 67.2 MAX 1070 MIN 5.7 CFSM 5.65 IN 76.90 AC-FT 48800
WTR YR 1977 TOTAL 14731.4 MEAN 40.4 MAX 451 MIN 5.7 CFSM 3.40 IN 46.05 AC-FT 29220

14307580 LAKE CREEK NEAR DEADWOOD, OR

LOCATION.--Lat 44°04'58", long 123°47'05", in NW¼NW¼ sec.21, T.17 S., R.9 W., Lane County, Hydrologic Unit 17100206, on right bank 0.2 mi (0.3 km) upstream from Indian Creek, 1.5 mi (2.4 km) southwest of Deadwood, and at mile 2.6 (4.2 km).

DRAINAGE AREA.--174 mi^2 (451 km^2).

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 178.86 ft (54.517 m) above mean sea level.

REMARKS.--Records good. Flow slightly regulated by natural storage in Triangle Lake. Several diversions for irrigation above station.

AVERAGE DISCHARGE.--10 years, 746 ft^3/s (21.13 m^3/s), 58.22 in/yr (1,479 mm/yr), 540,500 acre-ft/yr (666 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,700 ft^3/s (558 m^3/s) Jan. 21, 1972, gage height, 15.25 ft (4.648 m); minimum, 12 ft^3/s (0.34 m^3/s) Aug. 14, 15, 17, 18, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 4,200 ft^3/s (119 m^3/s) and maximum discharge, 4,610 ft^3/s (131 m^3/s) Mar. 8, gage height, 6.44 ft (1.963 m); minimum, 12 ft^3/s (0.34 m^3/s) Aug. 14, 15, 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	258	50	94	60	2310	549	168	192	46	20	41
2	36	156	49	120	56	1590	493	169	174	44	20	37
3	43	120	47	126	56	1400	447	228	166	45	19	40
4	40	100	47	121	55	1130	416	291	191	46	18	46
5	38	86	46	115	55	884	391	328	185	45	18	52
6	38	75	45	105	53	776	367	303	168	45	19	44
7	37	69	45	96	51	2360	350	271	152	42	18	41
8	36	64	58	90	51	3630	351	256	140	40	17	36
9	35	60	131	85	49	3380	343	234	130	41	17	33
10	36	56	114	80	53	2520	326	220	122	42	16	31
11	39	53	102	80	58	1790	309	211	113	39	14	30
12	37	52	91	85	56	1720	294	196	110	38	13	29
13	37	52	82	120	56	1600	289	184	104	38	13	27
14	36	60	74	143	55	1280	273	180	100	37	13	27
15	36	97	69	132	55	1040	262	192	95	36	13	27
16	36	138	65	121	53	860	257	221	91	34	13	28
17	34	121	62	111	51	734	243	221	84	33	12	30
18	33	122	61	103	49	657	229	210	83	34	13	45
19	31	110	58	96	47	608	221	196	80	32	14	176
20	31	97	56	91	55	554	216	182	79	31	14	440
21	31	87	52	86	130	500	212	180	80	29	15	226
22	31	80	51	78	445	464	206	169	75	28	16	142
23	32	73	51	73	494	489	195	166	72	28	16	122
24	42	67	50	68	1500	573	188	160	64	27	33	152
25	141	67	56	66	1210	552	188	151	60	25	41	148
26	110	64	104	62	1230	505	206	174	59	27	53	128
27	80	60	175	60	1060	628	191	196	55	28	43	108
28	67	55	157	58	2330	746	182	218	53	27	45	111
29	61	53	133	56	---	729	176	205	50	25	59	98
30	57	51	116	56	---	652	176	189	48	24	56	91
31	94	---	103	60	---	576	---	189	---	22	49	---
TOTAL	1469	2603	2400	2837	9473	37237	8546	6458	3175	1078	740	2586
MEAN	47.4	86.8	77.4	91.5	338	1201	285	208	106	34.8	23.9	86.2
MAX	141	258	175	143	2330	3630	549	328	192	46	59	440
MIN	31	51	45	56	47	464	176	151	48	22	12	27
CFSM	.27	.50	.45	.53	1.94	6.90	1.64	1.20	.61	.20	.14	.50
IN.	.31	.56	.51	.61	2.03	7.96	1.83	1.38	.68	.23	.16	.55
AC-FT	2910	5160	4760	5630	18790	73860	16950	12810	6300	2140	1470	5130

CAL YR 1976 TOTAL 183979 MEAN 503 MAX 8770 MIN 28 CFSM 2.89 IN 39.33 AC-FT 364900
WTR YR 1977 TOTAL 78602 MEAN 215 MAX 3630 MIN 12 CFSM 1.24 IN 16.80 AC-FT 155900

14307620 SIUSLAW RIVER NEAR MAPLETON, OR

LOCATION.--Lat 44°03'45", long 123°52'55, in SW¼NW¼ sec.27, T.17 S., R.10 W., Lane County, Hydrologic Unit 17100206, on right bank 250 ft (76 m) above Shoemaker Creek, 2.5 mi (4.0 km) northwest of Mapleton, and at mile 23.7 (38.1 km).

DRAINAGE AREA.--588 mi^2 (1,523 km^2).

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 41 ft (12.5 m), from topographic map.

REMARKS.--Records good. No regulation or diversions above station.

AVERAGE DISCHARGE.--10 years, 2,221 ft^3/s (62.90 m^3/s), 51.29 in/yr (1,303 mm/yr), 1,609,000 acre-ft/yr (1.98 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,400 ft^3/s (1,400 m^3/s) Jan. 21, 1972, gage height, 28.45 ft (8.672 m); minimum, 45 ft^3/s (1.27 m^3/s) Aug. 18, 19, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1964 reached a stage of about 28 ft (8.5 m), from information by local residents (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,400 ft^3/s (323 m^3/s) Mar. 8, gage height, 12.64 ft (3.853 m), no peak above base of 15,000 ft^3/s (425 m^3/s); minimum, 45 ft^3/s (1.27 m^3/s) Aug. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	616	189	286	220	6330	1310	435	524	171	76	138
2	101	460	185	341	214	4700	1180	440	495	165	73	122
3	108	359	185	381	203	3620	1070	546	466	165	68	125
4	111	301	182	395	198	2920	992	704	515	165	67	146
5	111	268	182	381	187	2270	923	909	537	165	64	183
6	106	240	176	345	190	1910	870	916	499	165	62	159
7	103	218	176	316	187	5330	820	826	463	162	64	138
8	101	205	199	271	183	9020	820	766	420	156	61	117
9	98	192	389	251	183	7770	607	704	381	151	59	105
10	96	185	380	304	187	6360	772	626	354	148	56	95
11	101	182	335	278	198	5030	731	592	341	148	54	89
12	106	182	304	293	201	4510	693	550	328	143	52	85
13	106	179	286	371	201	4630	682	511	312	140	49	81
14	103	189	264	455	201	3410	661	490	297	130	48	78
15	101	297	254	425	195	2680	631	503	286	130	48	78
16	98	428	240	395	193	2180	621	555	275	125	47	78
17	98	428	229	362	193	1870	587	564	264	117	46	81
18	96	415	229	328	187	1660	564	541	261	114	45	114
19	91	376	218	312	183	1510	546	515	254	114	47	381
20	89	335	212	293	190	1350	528	486	245	109	48	1010
21	89	301	205	278	336	1220	520	478	245	107	48	564
22	89	279	202	261	1050	1110	507	455	241	105	52	358
23	89	257	199	251	1520	1140	490	440	229	100	53	300
24	108	243	202	241	3510	1340	478	435	217	98	85	395
25	304	240	212	232	3050	1330	470	410	209	93	138	435
26	384	233	320	223	2910	1230	499	463	203	93	165	381
27	286	215	455	217	2540	1470	474	499	195	95	154	312
28	240	209	446	209	5720	1710	455	597	193	98	156	300
29	209	202	381	206	---	1710	440	587	180	91	183	278
30	189	196	341	201	---	1570	440	541	177	85	193	264
31	215	---	308	206	---	1390	---	524	---	81	171	---
TOTAL	4227	8430	8085	9308	24530	94280	20581	17608	9606	3929	2532	6990
MEAN	136	281	261	300	876	3041	686	568	320	127	81.7	233
MAX	384	616	455	455	5720	9020	1310	916	537	171	193	1010
MIN	89	179	176	201	183	1110	440	410	177	81	45	78
CFSM	.23	.48	.44	.51	1.49	5.17	1.17	.97	.54	.22	.14	.40
IN.	.27	.53	.51	.59	1.55	5.96	1.30	1.11	.61	.25	.16	.44
AC-FT	8380	16720	16040	18460	48660	187000	40820	34930	19050	7790	5020	13860

CAL YR 1976 TOTAL 554667 MEAN 1515 MAX 30700 MIN 89 CFSM 2.58 IN 35.09 AC-FT 1100000
WTR YR 1977 TOTAL 210106 MEAN 576 MAX 9020 MIN 45 CFSM .98 IN 13.29 AC-FT 416700

14307645 NORTH FORK SIUSLAW RIVER NEAR MINERVA, OR

LOCATION.--Lat 44°02'50", long 124°00'10", in NW¼SW¼ sec.34, T.17 S., R.11 W., Lane County, Hydrologic Unit 17100206, on left bank 10 ft (3 m) downstream from county road bridge, 0.3 mi (0.5 km) upstream from Condon Creek, 2.7 mi (4.3 km) southwest of Minerva, and at mile 13.09 (21.06 km).

DRAINAGE AREA.--41.2 mi^2 (106.7 km^2).

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder, and crest-stage gage. Altitude of gage is 40 ft (12 m), from topographic map.

REMARKS.--Records good. No regulation. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--10 years, 293 ft^3/s (8.298 m^3/s), 96.58 in/yr (2,453 mm/yr), 212,300 acre-ft/yr (262 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,040 ft^3/s (86.1 m^3/s) Jan. 21, 1972, gage height, 23.01 ft (7.013 m); maximum gage height, 23.38 ft (7.126 m) Dec. 1, 1975 (backwater from debris); minimum discharge, 12 ft^3/s (0.34 m^3/s) Sept. 2, 3, 15-18, 1972, Aug. 12, 13, 17, 23, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,640 ft^3/s (46.4 m^3/s) Feb. 28, gage height, 14.81 ft (4.514 m), no peak above base of 1,800 ft^3/s (51.0 m^3/s): minimum daily, 12 ft^3/s (0.34 m^3/s) Aug. 12, 13, 17, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	124	44	67	50	1290	282	69	120	35	18	33
2	20	76	41	90	46	941	248	69	106	34	18	27
3	22	59	40	88	43	955	226	111	101	34	16	50
4	20	49	39	84	42	713	209	110	127	35	16	80
5	19	43	37	79	41	542	194	112	114	34	15	78
6	19	39	37	73	42	476	180	101	103	34	15	50
7	18	36	35	69	40	848	169	91	94	32	15	38
8	18	33	55	64	39	1100	170	84	86	32	15	32
9	17	32	83	60	38	1080	161	78	80	31	15	28
10	18	31	64	59	46	849	148	76	75	32	14	25
11	20	29	57	62	48	671	141	73	73	31	13	23
12	18	28	53	74	51	697	135	68	70	29	12	22
13	18	28	50	122	60	611	140	65	65	29	12	21
14	16	36	48	135	53	516	128	65	62	27	13	21
15	16	125	46	115	49	444	123	78	59	26	13	21
16	16	204	44	101	47	380	121	95	56	26	13	20
17	16	132	44	89	45	343	112	86	54	25	12	20
18	16	130	46	81	43	341	108	78	55	25	13	46
19	17	105	42	76	42	348	102	73	54	24	13	307
20	16	87	40	72	57	312	99	69	54	24	13	597
21	16	76	39	65	115	285	96	79	55	23	13	227
22	16	69	38	64	225	263	93	70	49	22	13	132
23	16	61	40	61	199	276	88	69	47	22	12	119
24	26	57	38	58	715	320	84	67	44	21	33	172
25	92	68	49	55	710	286	84	63	43	21	26	182
26	53	57	115	53	851	262	83	95	41	22	42	157
27	36	52	131	51	872	414	77	101	40	22	25	126
28	30	49	106	49	1590	408	74	109	38	21	94	118
29	28	47	90	48	---	379	73	98	37	21	76	101
30	26	46	79	46	---	332	71	89	36	20	84	97
31	53	---	71	51	---	295	---	111	---	19	47	---
TOTAL	751	2008	1741	2261	6199	16977	4019	2602	2038	833	749	2970
MEAN	24.2	66.9	56.2	72.9	221	548	134	83.9	67.9	26.9	24.2	99.0
MAX	92	204	131	135	1590	1290	282	112	127	35	94	597
MIN	16	28	35	46	38	262	71	63	36	19	12	20
CFSM	.59	1.62	1.36	1.77	5.36	13.3	3.25	2.04	1.65	.65	.59	2.40
IN.	.68	1.81	1.57	2.04	5.60	15.33	3.63	2.35	1.84	.75	.68	2.68
AC-FT	1490	3980	3450	4480	12300	33670	7970	5160	4040	1650	1490	5890

CAL YR 1976 TOTAL 74152 MEAN 203 MAX 2510 MIN 16 CFSM 4.93 IN 66.95 AC-FT 147100
WTR YR 1977 TOTAL 43148 MEAN 118 MAX 1590 MIN 12 CFSM 2.86 IN 38.96 AC-FT 85580

14307700 JACKSON CREEK NEAR TILLER, OR

LOCATION.--Lat 42°57'15", long 122°49'40", in SW¼NE¼ sec.21, T.30 S., R.1 W., Douglas County, Hydrologic Unit 17100302, on right bank 0.5 mi (0.8 km) upstream from Chapman Creek, 0.8 mi (1.3 km) downstream from Beaver Creek, 6.5 mi (10.5 km) northeast of Tiller, and at mile 3.0 (4.8 km). Records include flow of Chapman Creek.

DRAINAGE AREA.--152 mi^2 (394 km^3), at cableway 0.6 mi (1.0 km) downstream where all discharge measurements are made.

PERIOD OF RECORD.--October 1955 to current year.

REVISED RECORDS.--WSP 1935: 1956-57(M).

GAGE.--Water-stage recorder. Datum of gage is 1,240.25 ft (378.028 m) above mean sea level (levels by Douglas County Water Resources Survey).

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--22 years, 319 ft^3/s (9.034 m^3/s), 28.50 in/yr (724 mm/yr), 231,100 acre-ft/yr (285 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,100 ft^3/s (598 m^3/s) Dec. 22, 1964, gage height, 18.0 ft (5.49 m), from floodmark, from rating curve extended above 5,100 ft^3/s (144 m^3/s) and basin runoff comparison; minimum, 11 ft^3/s (0.31 m^3/s) Jan. 6, 1977, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 664 ft^3/s (18.8 m^3/s) May 23, gage height, 3.47 ft (1.058 m), no peak above base of 2,500 ft^3/s (70.8 m^3/s); minimum, 11 ft^3/s (0.31 m^3/s) Jan. 6, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	26	19	18	22	101	221	174	258	37	18	17
2	24	28	19	27	20	88	229	315	226	47	18	16
3	27	25	18	31	20	115	185	318	201	39	17	15
4	25	23	18	27	20	95	212	418	182	36	17	15
5	24	22	18	26	20	84	272	548	172	34	16	15
6	24	21	18	16	20	93	284	470	162	34	16	14
7	23	20	18	18	20	95	309	391	149	33	16	14
8	22	20	21	16	20	151	366	335	135	31	18	13
9	22	20	27	16	20	182	309	331	122	29	17	13
10	21	20	22	28	20	154	233	478	112	29	16	13
11	21	20	22	31	20	130	192	548	116	28	16	13
12	21	20	22	37	20	132	182	470	102	27	15	13
13	21	20	21	33	20	117	218	384	92	27	15	13
14	20	24	20	32	20	97	195	335	83	26	15	12
15	20	35	19	28	20	83	174	309	76	25	15	12
16	20	39	19	27	20	74	195	377	71	24	14	13
17	20	29	19	26	20	69	172	548	68	24	14	13
18	20	26	18	28	20	67	149	504	65	24	14	14
19	20	24	15	29	19	76	135	430	61	24	14	20
20	20	23	17	29	19	107	128	410	58	24	14	24
21	20	22	20	28	26	101	128	388	59	23	15	21
22	20	21	20	28	32	115	137	391	54	22	15	17
23	20	20	19	27	31	162	138	571	52	21	14	17
24	21	20	18	25	31	187	149	619	49	20	27	48
25	35	20	18	23	28	172	167	508	46	20	36	32
26	40	20	21	19	34	138	151	504	45	20	30	25
27	26	20	21	21	45	165	138	458	43	19	25	22
28	24	19	20	21	102	182	137	388	41	19	20	212
29	22	19	19	20	---	165	140	331	39	18	19	190
30	22	19	18	22	---	140	145	290	37	19	19	76
31	23	---	18	23	---	132	---	265	---	18	19	---
TOTAL	712	685	602	780	729	3769	5790	12806	2976	821	554	952
MEAN	23.0	22.8	19.4	25.2	26.0	122	193	413	99.2	26.5	17.9	31.7
MAX	40	39	27	37	102	187	366	619	258	47	36	212
MIN	20	19	15	16	19	67	128	174	37	18	14	12
CFSM	.15	.15	.13	.17	.17	.80	1.27	2.72	.65	.17	.12	.21
IN.	.17	.17	.15	.19	.18	.92	1.42	3.13	.73	.20	.14	.23
AC-FT	1410	1360	1190	1550	1450	7480	11480	25400	5900	1630	1100	1890

CAL YR 1976 TOTAL 91293 MEAN 249 MAX 4000 MIN 15 CFSM 1.64 IN 22.34 AC-FT 181100
WTR YR 1977 TOTAL 31176 MEAN 85.4 MAX 619 MIN 12 CFSM .56 IN 7.63 AC-FT 61840

14308000 SOUTH UMPQUA RIVER AT TILLER, OR

LOCATION.--Lat 42°55'50", long 122°56'50", in NE¼ sec.33, T.30 S., R.2 W., Douglas County, Hydrologic Unit 17100302, on right bank 0.3 mi (0.5 km) upstream from bridge on State Highway 227 at Tiller, 0.3 mi (0.5 km) upstream from Elk Creek, and at mile 187.31 (301.38 km).

DRAINAGE AREA.--449 mi² (1,163 km²).

PERIOD OF RECORD.--October 1910 to December 1911, October 1939 to current year. Monthly discharge only for some periods, published in WSP 1318. Prior to December 1911, published as South Fork of Umpqua River at Tiller.

REVISED RECORDS.--WSP 1448: 1911(M), 1912, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 991.8 ft (302.30 m) above mean sea level (river-profile survey). Prior to Oct. 1, 1939, nonrecording gage at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Records good. No regulation. Small diversions above station for irrigation.

AVERAGE DISCHARGE.--39 years, 1,042 ft³/s (29.51 m³/s), 31.52 in/yr (801 mm/yr), 754,900 acre-ft/yr (931 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,200 ft³/s (1,700 m³/s) Dec. 22, 1964, gage height, 25.72 ft (7.839 m); minimum observed, 20 ft³/s (0.57 m³/s) Sept. 3, 4, 1911.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,850 ft³/s (52.4 m³/s) May 17, gage height, 4.15 ft (1.265 m), no peak above base of 7,000 ft³/s (198 m³/s); minimum, 36 ft³/s (1.02 m³/s) Aug. 19-21, 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	91	66	64	73	524	757	421	685	112	54	64
2	66	106	64	90	66	400	868	757	638	126	53	56
3	71	95	64	105	61	496	696	797	567	121	51	51
4	71	84	64	95	62	478	751	1110	524	110	50	48
5	67	78	62	85	64	396	961	1470	501	106	48	47
6	66	74	62	75	66	464	974	1330	487	102	47	46
7	64	73	62	68	64	438	1040	1090	464	102	46	44
8	62	71	67	68	62	763	1250	905	421	98	44	43
9	61	69	98	71	62	929	1050	838	380	93	50	43
10	59	67	86	84	61	763	774	1050	345	91	54	41
11	59	67	76	104	61	607	643	1260	337	89	48	40
12	59	67	76	135	61	602	597	1110	304	88	44	40
13	59	67	74	138	61	562	659	923	272	86	41	40
14	54	74	69	131	61	438	617	809	252	84	40	39
15	56	124	67	117	61	356	553	751	233	82	40	38
16	56	191	66	104	59	307	572	980	217	80	39	39
17	61	124	66	98	59	283	529	1720	202	78	38	41
18	61	104	64	98	58	272	469	1550	197	74	38	44
19	61	93	53	102	58	380	417	1250	185	73	38	53
20	59	88	58	100	56	553	392	1110	177	73	36	76
21	59	84	64	98	66	478	384	1010	177	74	36	84
22	59	80	66	93	106	524	388	955	166	73	38	62
23	59	76	66	89	119	712	392	1270	155	69	38	54
24	62	74	58	8[illegible]	119	707	409	1520	148	67	48	163
25	106	74	62	74	112	691	451	1280	140	66	126	140
26	163	73	68	62	138	557	447	1320	135	62	100	126
27	104	71	72	68	230	659	396	1330	128	61	98	100
28	84	67	66	68	538	780	380	1130	121	59	74	524
29	78	67	62	68	---	680	384	948	117	58	73	874
30	76	69	60	70	---	582	392	814	115	56	69	315
31	78	---	58	74	---	524	---	723	---	54	78	---
TOTAL	2166	2542	2066	2780	2664	16905	18592	33531	8790	2567	1677	3375
MEAN	69.9	84.7	66.6	89.7	95.1	545	620	1082	293	82.8	54.1	113
MAX	163	191	98	138	538	929	1250	1720	685	126	126	874
MIN	54	67	53	62	56	272	380	421	115	54	36	38
CFSM	.16	.19	.15	.20	.21	1.21	1.38	2.41	.65	.18	.12	.25
IN.	.18	.21	.17	.23	.22	1.40	1.54	2.78	.73	.21	.14	.28
AC-FT	4300	5040	4100	5510	5280	33530	36880	66510	17430	5090	3330	6690

CAL YR 1976 TOTAL 304113 MEAN 831 MAX 16000 MIN 53 CFSM 1.85 IN 25.20 AC-FT 603200
WTR YR 1977 TOTAL 97655 MEAN 268 MAX 1720 MIN 36 CFSM .60 IN 8.09 AC-FT 193700

14308500 ELK CREEK NEAR DREW, OR

LOCATION.--Lat 42°53'25", long 122°55'00", in SW¼ sec.11, T.31 S., R.2 W., Douglas County, Hydrologic Unit 17100302, on right bank 100 ft (30 m) downstream from Dixon Creek, 0.1 mi (0.2 km) upstream from Drew Creek, 1.3 mi (2.1 km) northwest of Drew, 3.3 mi (5.3 km) southeast of Tiller, and at mile 4.1 (6.6 km).

DRAINAGE AREA.--54.4 mi^2 (140.9 km^2).

PERIOD OF RECORD.--September 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,279.25 ft (389.915 m) above mean sea level.

REMARKS.--Records good. No regulation. Several diversions for irrigation above station.

AVERAGE DISCHARGE.--23 years, 86.0 ft^3/s (2.436 m^3/s), 62,310 acre-ft/yr (76.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,880 ft^3/s (251 m^3/s) Dec. 22, 1964, gage height, 10.61 ft (3.234 m), from rating curve extended above 2,900 ft^3/s (82.1 m^3/s) on basis of slope-area measurement at gage height 10.34 ft (3.152 m); maximum gage height, 10.80 ft (3.292 m) Jan. 15, 1974; no flow at times in September 1974, and Aug. 16-22, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 11.8 ft (3.60 m), from floodmarks, probably for flood in January or November 1953, discharge, about 11,000 ft^3/s (312 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 180 ft^3/s (5.10 m^3/s) May 23, gage height, 3.84 ft (1.170 m), no peak above base of 1,000 ft^3/s (28.3 m^3/s); no flow Aug. 16-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	3.7	2.4	3.1	2.7	25	89	17	35	3.3	.37	.71
2	2.4	4.3	2.4	4.7	3.1	24	85	44	29	14	.32	.71
3	3.1	4.0	2.4	7.0	3.1	43	64	54	25	7.4	.22	.55
4	3.1	3.7	2.4	6.0	2.7	34	60	89	23	6.0	.18	.48
5	2.7	3.3	2.4	6.5	2.7	25	64	159	20	4.7	.12	.48
6	2.7	3.3	2.4	4.7	2.7	26	63	122	17	4.3	.10	.42
7	2.4	3.1	2.4	3.3	2.7	26	59	92	16	3.7	.07	.42
8	2.4	3.1	3.3	3.3	2.7	59	66	70	14	3.3	.07	.32
9	2.1	3.1	6.5	3.3	2.7	82	61	57	14	3.1	.18	.32
10	1.9	2.7	4.7	3.3	2.7	67	49	52	13	3.3	.27	.32
11	2.1	2.7	4.0	3.3	2.7	53	41	75	13	3.1	.18	.27
12	2.1	2.7	3.7	6.0	2.7	49	37	69	12	3.1	.12	.27
13	1.9	2.7	3.7	6.5	2.7	41	36	56	11	3.1	.10	.32
14	1.9	3.7	3.3	7.4	2.7	33	34	47	9.4	2.7	.07	.37
15	1.6	5.1	3.3	7.0	2.7	27	29	41	8.9	2.4	.07	.42
16	1.6	5.6	3.1	6.5	2.7	23	27	51	7.9	2.4	.00	.48
17	1.6	4.7	3.1	5.6	2.7	21	24	122	7.9	1.9	.00	.63
18	1.6	4.0	2.7	5.1	2.7	20	22	101	7.9	1.4	.00	.63
19	1.9	3.7	2.7	5.1	2.7	23	20	77	7.4	1.9	.00	.95
20	1.9	3.3	2.8	5.6	2.7	30	18	59	6.5	1.6	.00	1.9
21	1.6	3.3	2.4	5.6	4.3	30	17	49	6.0	1.4	.00	1.6
22	1.9	3.1	2.7	5.6	8.4	33	16	49	5.6	.95	.00	1.4
23	1.9	3.1	2.7	5.1	8.9	51	14	133	5.1	.82	.07	1.1
24	2.1	2.7	3.1	4.7	12	70	14	154	4.7	.82	.42	2.1
25	3.3	2.7	3.1	4.3	10	60	13	103	4.0	.82	2.7	2.1
26	4.0	2.7	3.3	5.1	10	48	13	101	4.0	.82	2.7	1.4
27	3.3	2.7	3.3	4.3	12	51	12	92	3.3	.82	2.1	1.4
28	3.1	2.4	3.1	4.0	21	57	11	73	3.1	.63	1.6	27
29	3.1	2.4	3.3	4.0	---	56	12	59	2.7	.63	1.4	33
30	3.1	2.7	3.1	4.0	---	51	13	48	2.7	.55	1.1	12
31	3.3	---	2.7	3.1	---	47	---	41	---	.42	.95	---
TOTAL	74.1	100.3	96.5	153.1	141.4	1285	1083	2356	339.1	85.38	15.48	94.07
MEAN	2.39	3.34	3.11	4.94	5.05	41.5	36.1	76.0	11.3	2.75	.50	3.14
MAX	4.0	5.6	6.5	7.4	21	82	89	159	35	14	2.7	33
MIN	1.6	2.4	2.4	3.1	2.7	20	11	17	2.7	.42	.00	.27
AC-FT	147	199	191	304	280	2550	2150	4670	673	169	31	187

CAL YR 1976 TOTAL 19017.79 MEAN 52.0 MAX 964 MIN .82 AC-FT 37720
WTR YR 1977 TOTAL 5823.43 MEAN 16.0 MAX 159 MIN .00 AC-FT 11550

14308600 SOUTH UMPQUA RIVER AT DAYS CREEK, OR

LOCATION.--Lat 42°58'05", long 123°09'60", in NW¼ sec.15, T.30 S., R.4 W., Douglas County, Hydrologic Unit 17100302, on left bank 0.3 mi (0.5 km) upstream from Days Creek, 0.4 mi (0.6 km) southeast of community of Days Creek, and at mile 170.2 (273.9 km).

DRAINAGE AREA.--641 mi^2 (1,660 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is 738.55 ft (225.110 m) above sea level.

REMARKS.--Water-discharge records good. No regulation. Many small diversions above station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,600 ft^3/s (753 m^3/s) Jan. 8, 1976, gage height, 17.72 ft (5.401 m); minimum, 31 ft^3/s (0.88 m^3/s) Sept. 15, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,290 ft^3/s (64.9 m^3/s) May 17, gage height, 6.14 ft (1.871 m), no peak above base of 12,000 ft^3/s (340 m^3/s); minimum, 31 ft^3/s (0.88 m^3/s) Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	93	72	70	104	706	853	462	793	117	52	81
2	78	115	71	82	99	521	1130	846	730	130	50	62
3	79	115	70	156	91	688	900	914	636	145	47	55
4	84	99	69	168	87	670	880	1320	586	126	46	49
5	80	90	68	147	87	516	1110	1820	545	120	43	45
6	78	84	68	129	89	545	1130	1760	526	118	44	44
7	76	80	68	79	92	536	1180	1400	498	114	43	42
8	73	77	75	81	89	813	1390	1160	457	110	45	39
9	70	75	120	78	89	1140	1270	1030	411	105	53	37
10	68	72	120	98	89	1090	962	1170	371	103	52	36
11	66	71	97	134	88	826	780	1470	360	101	47	35
12	65	71	89	164	87	755	700	1350	329	98	44	34
13	65	70	89	188	87	749	742	1130	301	94	42	34
14	63	73	84	177	88	581	742	969	274	92	40	32
15	61	103	79	164	88	475	647	887	251	89	39	31
16	59	212	76	145	87	403	641	1090	234	88	37	32
17	59	164	76	134	86	360	619	2030	220	85	35	34
18	59	127	73	127	85	349	545	1920	213	80	34	39
19	59	109	65	134	82	423	489	1530	202	79	34	48
20	58	101	44	134	81	653	453	1330	192	81	34	61
21	58	94	62	132	95	592	440	1210	190	78	34	94
22	57	90	77	127	140	597	440	1100	185	74	34	79
23	59	87	76	121	173	813	440	1490	172	70	34	60
24	61	84	72	115	179	900	449	1900	163	66	47	86
25	83	83	69	108	173	880	484	1600	156	62	108	196
26	174	80	71	93	177	718	507	1570	149	60	127	134
27	143	78	85	79	249	712	449	1610	142	61	112	135
28	101	75	95	93	489	977	423	1380	132	57	100	254
29	89	70	88	92	---	887	432	1160	124	54	81	1200
30	85	73	80	89	---	768	440	984	117	54	82	427
31	84	---	76	106	---	664	---	853	---	54	77	---
TOTAL	2372	2815	2424	3744	3450	21307	21667	40445	9659	2765	1697	3535
MEAN	76.5	93.8	78.2	121	123	687	722	1305	322	89.2	54.7	118
MAX	174	212	120	188	489	1140	1390	2030	793	145	127	1200
MIN	57	70	44	70	81	349	423	462	117	54	34	31
CFSM	.12	.15	.12	.19	.19	1.07	1.13	2.04	.50	.14	.09	.18
IN.	.14	.16	.14	.22	.20	1.24	1.26	2.35	.56	.16	.10	.21
AC-FT	4700	5580	4810	7430	6840	42260	42980	80220	19160	5480	3370	7010

CAL YR 1976 TOTAL 357480 MEAN 977 MAX 17300 MIN 44 CFSM 1.52 IN 20.75 AC-FT 709100
WTR YR 1977 TOTAL 115880 MEAN 317 MAX 2030 MIN 31 CFSM .50 IN 6.73 AC-FT 229800

14308600 SOUTH UMPQUA RIVER AT DAYS CREEK, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1970 to current year.
TURBIDITY: November 1972 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28.5°C Aug. 6-9, 1972; minimum, 0.0°C Dec. 8, 10-14, 17, 18, 1972, Feb. 5-8, Dec. 21, 22, 1976, Jan. 7-12, 27-30, 1977.
TURBIDITY: Maximum, 900 JTU Jan. 16, 1974; minimum, 0 JTU on many days during 1973, 1974.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 27.5°C Aug. 3; minimum, 0.0°C Dec. 21, 22, Jan. 7-12, 27-30.
TURBIDITY: Maximum, 50 JTU Mar. 11; minimum, 1 JTU on many days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT											
13...	0930	64	13.5	143	11	30	15	4.2	7.9	.9	55
NOV											
17...	1545	158	12.5	148	12	20	14	3.7	7.4	.8	57
JAN											
13...	1500	183	2.0	149	16	30	15	4.0	8.0	.6	56
FEB											
14...	1145	91	8.5	159	15	30	15	4.0	8.2	.7	56
APR											
06...	0900	1200	8.5	69	14	110	6.9	1.7	3.4	.5	31
MAY											
17...	1010	2220	8.0	72	15	200	7.9	2.0	3.8	.5	36
JUN											
29...	0900	127	21.0	108	13	40	13	2.9	6.1	.9	48
AUG											
04...	1000	--	--	--	--	--	--	--	--	--	--
15...	1100	40	24.5	160	15	30	16	3.4	8.4	1.1	56
SEP											
26...	1230	95	16.0	--	14	30	16	3.4	7.4	.8	49

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)
OCT											
13...	9.3	12	.1	.12	.03	55	10	.5	88	15.2	.12
NOV											
17...	9.3	9.6	.0	.10	.02	50	3	.5	85	36.3	.12
JAN											
13...	10	12	.1	.18	.02	54	8	.5	94	46.4	.13
FEB											
14...	10	13	.0	.00	--	54	8	.5	94	23.1	.13
APR											
06...	8.4	2.3	.1	.03	.03	24	0	.3	53	172	.07
MAY											
17...	3.6	2.0	.3	.03	.07	28	0	.3	53	318	.07
JUN											
29...	5.8	5.0	.0	--	.01	44	5	.4	70	24.0	.10
AUG											
04...	--	--	--	.01	.02	--	--	--	--	--	--
15...	13	13	.1	--	.03	54	8	.5	98	10.6	.13
SEP											
26...	8.1	9.9	.1	--	.03	54	14	.4	84	21.5	.11

14308600 SOUTH UMPQUA RIVER AT DAYS CREEK, OR—Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	12.5	11.0	3.0	2.0	3.5	2.5	4.0	2.0	6.5	5.0
2	---	---	13.0	11.5	3.0	2.0	3.5	2.5	4.0	1.5	5.5	4.5
3	---	---	14.5	12.0	3.0	1.5	3.0	2.5	3.5	1.0	5.5	4.5
4	---	---	14.0	11.5	2.5	2.0	3.5	2.5	3.5	1.5	6.5	4.5
5	---	---	13.0	11.0	2.5	1.5	3.5	2.0	3.0	2.0	8.0	4.5
6	---	---	12.0	11.0	3.0	2.0	2.0	0.5	4.5	2.5	6.5	5.0
7	---	---	11.5	10.0	3.0	2.5	1.0	0.0	4.5	2.5	6.5	5.0
8	17.0	14.5	11.5	10.0	4.0	3.0	0.5	0.0	5.5	3.5	6.5	5.5
9	16.5	14.5	11.0	9.0	4.0	3.0	0.0	0.0	6.0	4.0	6.0	5.5
10	16.5	14.0	10.5	9.5	4.5	3.5	1.5	0.0	7.5	5.0	6.0	4.5
11	17.5	15.0	10.0	9.0	4.5	3.5	1.0	0.0	7.5	5.0	6.0	4.5
12	17.0	14.0	11.0	9.5	4.5	3.5	2.0	0.0	8.0	5.5	6.5	5.5
13	16.5	13.5	10.5	9.0	4.5	3.5	2.0	1.0	9.0	6.5	6.5	5.0
14	16.0	13.0	10.0	9.0	4.5	3.5	2.5	0.5	9.5	7.0	6.0	4.0
15	15.0	12.5	11.0	10.0	4.5	3.0	2.5	0.0	9.0	6.5	6.0	4.5
16	14.5	12.0	12.5	10.0	4.0	3.0	3.0	0.5	8.5	6.5	7.0	4.0
17	13.5	11.0	12.0	11.0	3.5	2.5	3.0	1.0	9.0	6.5	6.0	5.0
18	13.0	10.5	12.5	11.5	3.5	2.5	3.0	1.0	8.5	6.0	6.5	5.0
19	12.5	10.0	12.0	11.0	2.5	1.0	3.0	1.0	8.5	5.5	7.5	6.0
20	12.0	10.0	11.0	9.5	1.5	0.5	3.0	1.0	8.0	6.5	9.0	6.5
21	12.0	9.5	10.0	9.0	1.0	0.0	3.0	1.5	7.5	6.0	9.5	6.5
22	11.5	10.0	9.5	8.5	1.5	0.0	4.0	2.5	8.0	5.5	9.5	6.5
23	11.5	10.0	10.0	9.0	2.0	1.0	4.0	2.5	7.0	5.5	8.0	7.0
24	11.5	9.5	9.0	8.0	1.5	0.5	4.0	2.5	7.0	5.0	7.5	6.5
25	11.0	9.5	8.5	8.0	2.0	1.0	3.0	2.0	6.5	5.5	7.5	6.0
26	12.0	9.0	8.0	6.5	2.5	1.0	2.5	1.0	7.5	5.5	8.5	6.5
27	11.5	8.5	6.5	5.0	3.5	2.0	2.0	0.0	7.5	6.0	7.5	6.5
28	11.0	8.0	5.0	3.0	3.0	2.5	2.0	0.0	8.0	6.5	7.0	5.5
29	10.5	9.5	4.0	2.5	3.0	2.5	2.0	0.0	---	---	6.5	5.0
30	12.0	10.0	3.5	2.0	3.5	2.5	2.0	0.0	---	---	7.5	5.0
31	12.0	10.5	---	---	3.5	2.5	3.0	1.0	---	---	6.5	5.5
MONTH	17.5	8.0	14.5	2.0	4.5	0.0	4.0	0.0	9.5	1.0	9.5	4.0

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.5	6.0	13.5	12.0	16.0	14.0	25.0	21.0	26.5	22.5	23.0	18.5
2	8.5	6.0	12.5	11.0	16.0	13.0	24.0	19.5	27.0	23.5	23.0	19.0
3	9.5	6.5	12.0	10.5	14.5	13.0	22.0	18.5	27.5	23.0	24.0	20.5
4	10.5	7.5	10.5	8.5	16.5	13.0	22.0	18.0	27.0	23.5	24.0	21.0
5	10.5	8.0	8.5	7.5	20.5	15.5	21.5	17.0	26.5	23.5	22.5	20.5
6	8.5	8.0	9.0	6.5	22.0	18.0	23.5	16.5	27.0	23.5	23.0	19.5
7	11.0	8.5	9.5	8.0	21.0	19.0	24.5	18.0	26.0	24.0	22.5	19.5
8	10.0	8.5	10.5	8.0	20.0	17.5	25.0	18.5	---	---	21.5	19.0
9	9.0	7.5	12.5	10.0	19.5	16.0	23.5	19.0	---	---	21.0	18.5
10	9.0	6.5	10.5	9.0	18.5	16.5	24.5	19.0	---	---	21.0	18.0
11	10.5	7.5	9.5	8.0	19.5	16.0	25.5	19.5	---	---	21.0	18.5
12	11.5	8.5	10.5	8.5	19.5	16.5	23.5	20.5	---	---	21.5	19.0
13	11.5	9.5	11.5	9.5	21.0	16.5	24.0	18.5	---	---	21.5	18.5
14	11.5	8.5	12.5	10.5	22.5	18.0	25.0	19.0	---	---	21.5	18.0
15	11.5	8.5	11.5	10.0	22.5	18.5	26.0	20.0	---	---	18.0	16.5
16	11.5	9.5	10.0	8.5	23.5	18.5	26.5	21.0	27.0	25.0	17.5	16.0
17	11.5	9.0	9.0	7.5	21.5	19.5	26.5	21.5	27.0	24.5	17.0	16.0
18	11.0	7.5	9.0	7.5	22.5	18.5	24.5	22.0	26.0	23.5	17.5	16.0
19	11.5	7.5	11.5	8.0	21.5	19.0	25.5	21.0	25.5	23.0	17.5	16.0
20	11.5	8.0	13.5	10.5	19.5	17.5	26.5	21.0	23.5	22.5	18.0	15.5
21	12.5	9.5	14.0	12.0	23.5	17.5	26.5	21.0	23.0	21.5	18.0	15.5
22	13.0	10.0	12.5	10.0	25.0	20.0	27.0	21.5	24.0	21.0	18.5	14.5
23	13.0	10.5	10.5	9.0	25.5	20.0	27.0	22.0	24.0	21.5	17.5	15.5
24	13.0	10.5	11.5	9.5	26.0	20.0	27.0	22.5	23.0	20.5	17.5	14.5
25	11.5	10.5	10.5	9.5	23.5	21.0	25.0	21.5	21.0	19.0	17.0	15.0
26	13.5	9.5	11.0	9.5	25.5	19.5	26.0	22.0	21.5	18.5	16.0	15.0
27	15.0	10.5	10.5	9.5	25.5	20.0	26.0	21.5	21.0	18.5	16.0	15.0
28	13.5	11.5	12.0	9.0	26.5	20.0	25.5	21.0	22.0	18.5	15.5	14.5
29	14.0	11.5	13.5	10.5	26.0	21.0	25.5	21.5	23.5	19.5	14.5	13.0
30	15.0	12.0	14.0	11.5	24.5	20.5	26.0	21.5	23.5	20.5	15.0	12.5
31	---	---	16.0	12.5	---	---	27.0	22.0	22.5	19.0	---	---
MONTH	15.0	6.0	16.0	6.5	26.5	13.0	27.0	16.5	27.5	18.5	24.0	12.5

14308600 SOUTH UMPQUA RIVER AT DAYS CREEK, OR--Continued

TURBIDITY (JTU), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	3	1	1
13	1	1	1	1	1	1	1	1	1	3	1	2
14	1	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1	1
16	1	1	1	1	1	1	1	1	1	1	1	1
17	1	1	1	1	1	1	1	1	1	1	1	1
18	1	1	1	1	1	1	1	1	1	1	1	1
19	1	1	1	3	1	1	1	1	1	1	1	1
20	1	1	1	1	1	1	15	1	2	1	1	1
21	1	1	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1	1	1
24	1	1	1	1	1	1	1	1	1	1	1	1
25	1	1	1	1	1	1	1	1	1	1	1	1
26	1	1	1	1	1	1	1	1	1	1	1	1
27	1	1	1	1	1	1	1	1	1	1	1	1
28	1	1	1	1	1	1	1	1	1	1	1	1
29	1	1	1	1	1	1	1	1	1	1	1	1
30	1	1	1	1	1	1	1	1	1	1	1	1
31	1	1	1	---	---	---	1	1	1	1	1	1
MONTH	1	1	1	3	1	1	15	1	1	3	1	1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1	1	1	15	15	15	10	5	7	5	1	1
2	1	1	1	15	15	15	15	9	10	7	1	4
3	1	1	1	35	15	25	20	7	9	8	6	7
4	1	1	1	25	20	20	7	6	7	10	8	10
5	1	1	1	20	15	15	6	5	6	25	10	20
6	1	1	1	15	10	10	7	5	5	20	15	15
7	1	1	1	10	8	9	6	5	5	15	10	10
8	1	1	1	15	8	10	8	5	6	10	8	9
9	1	1	1	20	15	15	8	5	6	8	5	7
10	1	1	1	25	15	20	5	4	4	6	5	5
11	1	1	1	50	15	15	6	3	3	8	5	7
12	1	1	1	15	10	10	6	2	3	8	6	7
13	1	1	1	10	9	10	5	2	3	6	5	5
14	1	1	1	15	8	9	5	2	3	5	4	4
15	10	1	2	8	7	8	5	1	2	4	3	3
16	5	1	1	7	6	7	5	1	1	5	3	3
17	4	1	1	6	5	6	3	1	1	20	6	15
18	2	1	1	5	4	5	3	1	1	15	10	10
19	1	1	1	5	4	4	3	1	1	10	6	8
20	1	1	1	15	5	8	1	1	1	6	4	5
21	1	1	1	7	6	6	1	1	1	5	3	4
22	1	1	1	6	5	5	1	1	1	3	2	3
23	1	1	1	6	5	5	2	1	1	9	3	4
24	1	1	1	35	6	9	1	1	1	10	9	10
25	1	1	1	15	9	10	1	1	1	9	6	7
26	1	1	1	9	8	8	1	1	1	7	5	5
27	7	1	2	8	6	7	1	1	1	7	5	6
28	15	2	7	8	7	7	1	1	1	6	4	5
29	---	---	---	8	7	8	1	1	1	4	3	4
30	---	---	---	9	7	8	1	1	1	3	3	3
31	---	---	---	9	6	7	---	---	---	5	2	3
MONTH	15	1	1	50	4	10	20	1	3	25	1	6

14308600 SOUTH UMPQUA RIVER AT DAYS CREEK, OR--Continued

TURBIDITY (JTU), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMHER	
1	4	2	3	1	1	1	1	1	1	1	1	1
2	4	1	2	1	1	1	1	1	1	1	1	1
3	2	1	1	1	1	1	1	1	1	1	1	1
4	3	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	---	1	---	1	1	1
7	2	1	1	1	1	1	---	---	---	1	1	1
8	1	1	1	1	1	1	---	---	---	1	1	1
9	1	1	1	1	1	1	---	---	---	1	1	1
10	1	1	1	1	1	1	---	---	---	3	1	1
11	1	1	1	1	1	1	---	---	---	1	1	1
12	1	1	1	1	1	1	---	---	---	1	1	1
13	2	1	1	1	1	1	---	---	---	1	1	1
14	5	1	1	1	1	1	---	---	---	1	1	1
15	1	1	1	2	1	1	---	---	---	1	1	1
16	1	1	1	1	1	1	---	1	1	1	1	1
17	3	1	1	1	1	1	1	1	1	1	1	1
18	6	1	2	1	1	1	1	1	1	6	1	1
19	1	1	1	2	1	1	1	1	1	1	1	1
20	1	1	1	2	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1	1	1
23	2	1	1	1	1	1	1	1	1	1	1	1
24	1	1	1	1	1	1	1	1	1	1	1	1
25	2	1	1	1	1	1	1	1	1	2	1	1
26	1	1	1	1	1	1	1	1	1	1	1	1
27	1	1	1	1	1	1	1	1	1	1	1	1
28	1	1	1	1	1	1	1	1	1	20	1	2
29	1	1	1	1	1	1	1	1	1	25	10	15
30	1	1	1	1	1	1	1	1	1	10	5	7
31	---	---	---	1	1	1	1	1	1	---	---	---
MONTH	6	1	1	2	1	1	1	1	1	25	1	1

14309000 COW CREEK NEAR AZALEA, OR

LOCATION.--Lat 42°49'30", long 123°10'40", in N½ sec.4, T.32 S., R.4 W., Douglas County, Hydrologic Unit 17100302, on right bank 0.8 mi (1.3 km) upstream from Whitehorse Creek, 4.5 mi (7.2 km) northeast of Azalea, and at mile 58.2 (93.6 km).

DRAINAGE AREA.--78.0 mi^2 (202.0 km^2).

PERIOD OF RECORD.--April 1926 to September 1928 (no winter records), April 1929 to December 1931, April 1932 to current year.

REVISED RECORDS.--WSP 984: 1933-36. WSP 1154: 1946(M), 1948(M). WSP 1448: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,694.32 ft (516.429 m) above mean sea level (Douglas County Road Department bench mark). Prior to July 19, 1949, nonrecording gage at same site and datum.

REMARKS.--Records fair. No regulation. Diversions for irrigation above station.

AVERAGE DISCHARGE.--47 years (water years 1930-31, 1933-77), 111 ft^3/s (3.144 m^3/s), 19.33 in/yr (491 mm/yr), 80,420 acre-ft/yr (99.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft^3/s (300 m^3/s) Jan. 15, 1974, gage height, 16.40 ft (4.999 m), from high-water mark in well; minimum recorded, 1.2 ft^3/s (0.034 m^3/s) Sept. 2, 1970, but may have been less during period of no gage-height record Sept. 4-30, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 152 ft^3/s (4.30 m^3/s) May 17, no peak above base of 1,300 ft^3/s (36.8 m^3/s); maximum gage height, 2.35 ft (0.716 m) Sept. 28; minimum discharge, 3.4 ft^3/s (0.096 m^3/s) Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	16	14	14	13	51	46	26	41	11	5.0	6.6
2	17	19	13	20	12	46	49	66	37	27	5.0	6.9
3	17	16	14	22	12	67	45	70	35	17	5.0	7.8
4	16	15	14	20	12	58	46	74	32	13	5.0	7.2
5	15	15	13	20	12	46	53	82	30	12	5.0	7.2
6	15	14	15	13	12	41	56	89	29	12	5.0	7.2
7	14	14	15	16	13	40	55	73	27	10	5.0	7.5
8	13	13	18	18	13	71	59	62	26	10	4.8	6.6
9	12	13	25	16	13	87	56	52	26	9.4	4.8	6.4
10	13	14	20	17	12	76	46	48	24	9.8	4.8	5.8
11	13	13	17	19	12	60	41	59	24	9.4	4.8	5.1
12	12	14	16	22	12	57	39	54	22	9.1	4.9	4.6
13	12	14	16	20	12	51	39	47	21	9.1	5.8	4.4
14	11	17	15	19	12	44	38	44	20	8.8	5.6	4.4
15	12	20	15	17	13	38	33	43	19	8.4	6.1	4.9
16	12	19	15	16	13	33	32	64	18	7.8	6.1	6.1
17	13	17	14	16	13	32	30	133	17	7.2	5.8	7.5
18	13	16	12	15	13	32	29	94	18	6.9	5.3	7.8
19	13	16	11	15	13	35	27	74	17	7.8	5.8	10
20	11	15	15	15	14	39	26	62	16	7.8	5.8	12
21	10	15	16	15	24	38	25	52	17	7.5	6.6	9.1
22	11	15	17	14	35	37	24	49	16	6.6	6.9	7.8
23	12	15	15	14	28	48	23	92	14	6.4	6.9	7.8
24	13	15	14	13	31	64	22	128	14	6.1	18	9.8
25	19	15	14	12	27	57	22	94	12	5.6	20	10
26	17	15	14	12	27	49	23	90	12	5.6	12	8.8
27	14	14	17	12	28	46	22	83	12	6.1	11	8.8
28	14	13	15	13	45	52	21	70	11	5.8	9.1	59
29	14	14	15	13	---	52	24	59	11	5.6	8.4	56
30	14	15	15	13	---	47	24	52	10	5.6	8.1	20
31	14	---	13	13	---	44	---	46	---	5.3	7.5	---
TOTAL	422	456	472	494	496	1538	1075	2131	628	279.7	219.9	333.1
MEAN	13.6	15.2	15.2	15.9	17.7	49.6	35.8	68.7	20.9	9.02	7.09	11.1
MAX	19	20	25	22	45	87	59	133	41	27	20	59
MIN	10	13	11	12	12	32	21	26	10	5.3	4.8	4.4
CFSM	.17	.20	.20	.20	.23	.64	.46	.88	.27	.12	.09	.14
IN.	.20	.22	.23	.24	.24	.73	.51	1.02	.30	.13	.10	.16
AC-FT	837	904	936	980	984	3050	2130	4230	1250	555	436	661

CAL YR 1976 TOTAL 25083.0 MEAN 68.5 MAX 836 MIN 10 CFSM .88 IN 11.96 AC-FT 49750
WTR YR 1977 TOTAL 8544.7 MEAN 23.4 MAX 133 MIN 4.4 CFSM .30 IN 4.08 AC-FT 16950

14309500 WEST FORK COW CREEK NEAR GLENDALE, OR

LOCATION.--Lat 42°48'15", long 123°36'35", in SW¼NE¼ sec.11, T.32 S., R.8 W., Douglas County, Hydrologic Unit 17100302, on left bank 1.6 mi (2.6 km) downstream from Bear Creek, 11 mi (18 km) northwest of Glendale, and at mile 0.8 (1.3 km).

DRAINAGE AREA.--86.9 mi² (225.1 km²).

PERIOD OF RECORD.--August 1955 to current year.

REVISED RECORDS.--WSP 1738: 1956, drainage area (former site). WSP 1935: 1956.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 1,000 ft (305 m), from topographic map. Prior to June 8, 1964, at site 0.6 mi (1.0 km) upstream at different datum.

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--22 years, 277 ft³/s (7.845 m³/s), 43.29 in/yr (1,100 mm/yr), 200,700 acre-ft/yr (247 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft³/s (445 m³/s) Dec. 22, 1964, gage height, 18.59 ft (5.666 m), from floodmark, from rating curve extended above 2,600 ft³/s (73.6 m³/s) on basis of slope-area measurement of peak flow; minimum, 3.7 ft³/s (0.11 m³/s) Aug. 17, 19, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,370 ft³/s (38.8 m³/s) Mar. 7, gage height, 6.31 ft (1.923 m), no peak above base of 2,500 ft³/s (70.8 m³/s); minimum, 3.7 ft³/s (0.11 m³/s) Aug. 17, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	13	11	12	14	387	193	35	62	16	6.4	8.3
2	7.9	25	11	18	14	314	196	39	57	16	6.4	7.5
3	7.5	14	11	33	13	591	167	101	54	16	6.4	7.1
4	7.9	16	11	36	13	392	154	137	52	16	6.1	6.8
5	7.9	14	10	33	13	261	149	139	48	16	5.8	6.8
6	7.9	13	11	27	13	221	137	184	43	16	5.4	7.1
7	7.9	13	10	21	13	752	123	152	40	15	5.4	7.1
8	7.9	12	13	20	14	942	119	139	37	14	5.8	6.1
9	7.5	11	31	22	15	1080	101	114	35	13	5.4	5.8
10	7.5	11	24	22	14	640	87	98	33	13	5.4	5.4
11	7.5	11	18	24	13	439	78	93	33	12	4.6	5.4
12	7.5	11	15	63	13	449	71	84	32	12	4.6	5.1
13	7.9	12	14	48	13	396	70	74	30	11	4.3	5.1
14	7.9	22	13	40	12	291	66	68	28	11	4.3	4.8
15	7.5	26	13	34	12	221	60	66	28	11	4.3	4.8
16	7.5	23	13	29	12	178	56	110	26	11	4.0	4.8
17	7.5	19	12	25	12	154	52	196	24	10	4.0	5.8
18	5.4	17	12	22	11	142	48	176	24	10	4.0	10
19	7.5	15	12	22	11	154	45	139	23	10	4.0	32
20	7.5	14	10	20	15	178	41	112	23	11	4.0	29
21	7.5	14	11	20	67	162	41	96	23	10	4.3	18
22	6.8	13	11	18	193	157	38	85	22	9.9	4.6	15
23	5.4	12	12	18	190	173	37	89	20	9.5	4.6	12
24	8.7	12	12	17	205	187	35	90	19	9.1	20	21
25	17	12	12	16	157	178	35	82	19	7.9	28	20
26	19	12	12	13	142	154	36	93	18	7.5	17	17
27	12	12	14	15	181	167	33	95	17	7.5	12	22
28	8.3	12	14	16	454	208	31	90	17	7.5	9.9	378
29	9.9	11	13	15	---	230	31	84	16	7.1	9.5	230
30	15	11	13	17	---	217	33	77	16	7.1	9.1	89
31	14	---	13	15	---	190	---	68	---	6.8	8.7	---
TOTAL	275.1	433	412	751	1849	10205	2363	3205	919	349.9	228.3	996.8
MEAN	8.87	14.4	13.3	24.2	66.0	329	78.8	103	30.6	11.3	7.36	33.2
MAX	19	26	31	63	454	1080	196	196	62	16	28	378
MIN	5.4	11	10	12	11	142	31	35	16	6.8	4.0	4.8
CFSM	.10	.17	.15	.28	.76	3.79	.91	1.19	.35	.13	.09	.38
IN.	.12	.19	.18	.32	.79	4.37	1.01	1.37	.39	.15	.10	.43
AC-FT	546	859	817	1490	3670	20240	4690	6360	1820	694	453	1980

CAL YR 1976 TOTAL 49581.9 MEAN 135 MAX 2550 MIN 5.4 CFSM 1.55 IN 21.22 AC-FT 98350
WTR YR 1977 TOTAL 21987.1 MEAN 60.2 MAX 1080 MIN 4.0 CFSM .69 IN 9.41 AC-FT 43610

14310000 COW CREEK NEAR RIDDLE, OR

LOCATION.--Lat 42°55'25", long 123°25'40", in NE¼ sec.32, T.30 S., R.6 W., Douglas County, Hydrologic Unit 17100302, on left bank 0.4 mi (0.6 km) upstream from Council Creek, 3.8 mi (6.1 km) southwest of Riddle, and at mile 6.7 (10.8 km).

DRAINAGE AREA.--456 mi^2 (1,181 km^2).

PERIOD OF RECORD.--September 1954 to current year.

REVISED RECORDS.--WSP 1935: 1956(M).

GAGE.--Water-stage recorder. Datum of gage is 682.60 ft (208.056 m) above mean sea level.

REMARKS.--Records excellent. No regulation. Many small diversions for irrigation above station.

AVERAGE DISCHARGE.--23 years, 903 ft^3/s (25.57 m^3/s), 654,200 acre-ft/yr (807 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,400 ft^3/s (1,090 m^3/s) Jan. 15, 1974, gage height, 28.17 ft (8.586 m); minimum, 7.4 ft^3/s (0.21 m^3/s) Aug. 17-19, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 29, 1950, reached a stage of about 28.5 ft (8.69 m), present site and datum, from slope-area measurement, discharge, 41,100 ft^3/s (1,160 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,190 ft^3/s (62.0 m^3/s) Mar. 9, gage height, 4.46 ft (1.359 m), no peak above base of 10,000 ft^3/s (283 m^3/s); minimum, 7.4 ft^3/s (0.21 m^3/s) Aug. 17-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	63	51	56	61	895	386	120	197	35	13	21
2	41	78	53	63	61	774	398	140	179	32	13	20
3	40	74	51	100	59	1040	364	255	162	31	13	19
4	38	65	51	131	56	903	327	434	152	37	12	18
5	40	59	51	113	55	619	317	410	143	43	11	17
6	40	58	50	102	55	485	317	492	131	38	11	17
7	38	55	48	82	56	739	303	459	115	36	11	17
8	37	53	55	70	58	1370	298	404	107	32	10	16
9	37	53	91	78	65	1790	283	332	102	31	10	15
10	37	53	95	82	59	1510	255	288	100	29	10	14
11	37	51	78	82	58	1000	225	264	98	28	9.4	14
12	37	51	68	155	55	880	201	260	91	27	8.3	14
13	36	51	63	152	55	826	186	237	88	26	8.3	14
14	36	61	61	126	55	651	182	213	84	24	8.3	14
15	36	80	58	110	53	519	175	197	76	24	8.3	14
16	36	76	56	98	53	416	162	242	72	23	8.3	14
17	35	72	56	88	53	359	152	381	68	22	7.8	15
18	35	68	56	80	53	322	143	465	68	21	7.8	18
19	35	63	55	76	53	327	134	392	66	20	7.8	41
20	35	59	53	74	55	359	126	322	65	20	7.8	74
21	35	58	50	72	105	348	123	269	63	20	8.3	51
22	33	56	50	70	416	332	118	237	61	20	8.9	38
23	36	55	53	68	434	359	113	255	58	18	9.4	36
24	37	55	55	68	606	404	107	386	50	17	19	40
25	53	55	55	65	434	404	105	434	50	17	48	53
26	66	55	55	63	343	364	105	381	48	17	43	45
27	59	51	58	58	375	348	98	364	47	16	31	47
28	56	51	59	58	657	410	91	332	43	16	27	416
29	53	51	59	59	---	465	88	293	38	15	25	638
30	58	50	58	58	---	453	98	255	35	14	24	303
31	59	---	56	61	---	410	---	225	---	14	23	---
TOTAL	1292	1780	1808	2618	4498	20081	5980	9738	2657	763	462.7	2073
MEAN	41.7	59.3	58.3	84.5	161	648	199	314	88.6	24.6	14.9	69.1
MAX	66	80	95	155	657	1790	398	492	197	43	48	638
MIN	33	50	48	56	53	322	88	120	35	14	7.8	14
AC-FT	2560	3530	3590	5190	8920	39830	11860	19320	5270	1510	918	4110

CAL YR 1976 TOTAL 151261.0 MEAN 413 MAX 6690 MIN 31 AC-FT 300000
WTR YR 1977 TOTAL 53750.7 MEAN 147 MAX 1790 MIN 7.8 AC-FT 106600

14311000 NORTH MYRTLE CREEK NEAR MYRTLE CREEK, OR

LOCATION.--Lat 43°02'30", long 123°15'30", in SW¼ sec.14, T.29 S., R.5 W., Douglas County, Hydrologic Unit 17100302, on right bank 0.1 mi (0.2 km) downstream from Bilger Creek, 1.5 mi (2.4 km) northeast of town of Myrtle Creek, and at mile 2.1 (3.4 km).

DRAINAGE AREA.--54.2 mi^2 (140.4 km^2).

PERIOD OF RECORD.--October 1955 to current year.

REVISED RECORDS.--WSP 1738: 1957.

GAGE.--Water-stage recorder. Datum of gage is 641.48 ft (195.523 m) above mean sea level (levels by City Engineer of Myrtle Creek). Prior to Oct. 1, 1975, at datum 0.30 ft (0.091 m) lower.

REMARKS.--Records fair. No regulation. Several diversions for irrigation above station.

AVERAGE DISCHARGE.--22 years, 74.9 ft^3/s (2.121 m^3/s), 54,270 acre-ft/yr (66.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,260 ft^3/s (92.3 m^3/s) Jan. 20, 1964, gage height, 10.51 ft (3.203 m), from rating curve extended above 1,800 ft^3/s (51.0 m^3/s); maximum gage height, 11.58 ft (3.530 m) Dec. 26, 1955 (backwater from debris); no flow at times in July 1973 and August 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 157 ft^3/s (4.45 m^3/s) Mar. 3, gage height, 3.05 ft (0.930 m), no peak above base of 1,100 ft^3/s (31.2 m^3/s); no flow at times in August.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	10	8.2	8.5	7.3	39	33	15	21	2.1	1.8	1.5
2	7.5	11	8.2	13	6.8	55	32	32	19	1.9	1.4	1.3
3	7.5	9.8	8.0	19	6.6	125	28	35	16	2.2	1.4	1.1
4	7.1	9.0	8.2	15	6.2	90	25	38	15	1.8	1.6	.90
5	7.1	8.7	8.0	13	6.2	59	23	41	13	2.7	1.4	.63
6	6.6	8.7	8.0	12	6.2	44	23	45	10	2.4	1.5	.98
7	5.3	8.5	8.0	11	6.2	34	24	35	9.5	2.0	1.5	.70
8	5.8	8.0	10	12	6.2	30	25	30	9.5	1.4	.70	.58
9	6.0	8.0	19	13	6.0	69	25	28	9.0	1.6	.11	.70
10	6.4	8.0	14	11	6.0	91	23	27	9.0	2.2	.06	.83
11	6.4	8.0	11	12	5.8	69	21	31	8.5	1.5	.06	.98
12	6.4	8.0	11	23	5.6	59	20	27	8.5	1.2	.11	.58
13	6.2	7.7	9.8	18	5.6	51	19	24	7.7	1.3	.00	.58
14	6.0	9.3	9.5	15	5.6	43	18	22	7.3	1.1	.00	.98
15	5.8	13	9.3	13	5.6	36	17	22	7.1	1.1	.00	1.6
16	5.8	14	9.0	12	5.4	31	16	37	6.8	.95	.00	2.1
17	6.0	11	9.0	11	5.4	28	15	73	6.2	1.0	.00	2.3
18	6.2	10	8.7	10	5.2	27	14	64	5.8	.95	.00	2.9
19	6.2	9.3	8.5	9.5	5.2	32	14	50	5.8	1.0	.00	5.8
20	5.8	9.0	8.2	9.3	5.0	33	13	39	5.8	1.1	.00	6.1
21	6.2	8.7	8.2	8.7	6.6	30	12	32	6.0	1.4	.11	4.7
22	6.2	8.7	8.2	8.5	10	28	12	28	4.7	1.5	.45	3.8
23	6.6	8.5	8.7	8.0	13	31	12	36	4.5	1.7	.89	4.1
24	6.8	8.5	9.0	8.0	21	31	12	38	3.4	1.6	3.0	9.2
25	13	8.5	9.0	7.7	20	30	12	33	3.4	1.6	4.5	7.0
26	12	8.2	11	7.5	19	27	12	37	3.4	1.2	3.8	5.8
27	9.5	8.0	10	7.1	21	27	11	36	3.2	1.6	3.2	5.8
28	8.7	7.7	9.8	6.8	27	30	11	33	2.8	1.8	2.8	17
29	8.7	7.7	9.3	6.8	---	35	12	28	2.4	1.4	2.5	19
30	8.7	8.0	9.3	6.6	---	36	12	25	2.3	1.7	2.3	10
31	8.5	---	8.7	7.1	---	32	---	22	---	2.3	3.8	---
TOTAL	222.5	271.5	294.8	343.1	255.7	1382	546	1063	236.6	49.30	38.99	119.54
MEAN	7.18	9.05	9.51	11.1	9.13	44.6	18.2	34.3	7.89	1.59	1.26	3.98
MAX	13	14	19	23	27	125	33	73	21	2.7	4.5	19
MIN	5.3	7.7	8.0	6.6	5.0	27	11	15	2.3	.95	.00	.58
AC-FT	441	539	585	681	507	2740	1080	2110	469	98	77	237

CAL YR 1976 TOTAL 19099.10 MEAN 52.2 MAX 1290 MIN 2.6 AC-FT 37880
WTR YR 1977 TOTAL 4823.03 MEAN 13.2 MAX 125 MIN .0 AC-FT 9570

NOTE.--No gage-height record Apr. 5 to May 13.

14311500 LOOKINGGLASS CREEK AT BROCKWAY, OR

LOCATION.--Lat 43°07'50", long 123°27'50", in SE¼SE¼ sec.13, T.28 S., R.7 W., Douglas County, Hydrologic Unit 17100302, on left bank 1.7 mi (2.7 km) northwest of Brockway and at mile 2.85 (4.59 km).

DRAINAGE AREA.--158 mi^2 (409 km^2).

PERIOD OF RECORD.--October 1955 to current year.

REVISED RECORDS.--WSP 2135: Drainage area (former site).

GAGE.--Water-stage recorder. Altitude of gage is 540 ft (165 m), from topographic map. Prior to Oct. 5, 1967, water-stage recorder at site 2.3 mi (3.7 km) downstream at different datum.

REMARKS.--Records good. No regulation. Many diversions by pumping for irrigation above station.

AVERAGE DISCHARGE.--22 years, 289 ft^3/s (8.184 m^3/s), 209,400 acre-ft/yr (258 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,000 ft^3/s (991 m^3/s) Dec. 26, 1955, gage height, 24.93 ft (7.599 m), site and datum then in use, from rating curve extended above 7,200 ft^3/s (204 m^3/s) on basis of slope-area measurement of peak flow; maximum gage height, 25.28 ft (7.705 m) Dec. 23, 1964 (backwater from South Umpqua River, site and datum then in use); no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 844 ft^3/s (23.9 m^3/s) Mar. 9, 10, gage height, 4.95 ft (1.509 m), no peak above base of 3,000 ft^3/s (85.0 m^3/s); no flow in October and June through September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.97	6.1	3.8	4.6	5.7	331	92	21	21	.00	.00	.00
2	.90	6.7	3.8	4.9	5.7	262	83	24	18	.00	.00	.00
3	.90	8.2	3.8	7.1	5.4	296	73	29	18	.00	.00	.00
4	.90	7.8	3.8	15	5.4	236	64	84	18	.00	.00	.00
5	.85	7.1	3.8	16	5.4	159	55	123	17	.00	.00	.00
6	.90	4.6	3.8	14	5.4	113	49	135	15	.00	.00	.00
7	.90	4.3	3.8	12	5.4	96	46	110	8.9	.00	.00	.00
8	.85	4.1	4.1	9.8	5.1	100	44	82	7.1	.00	.00	.00
9	.85	4.1	5.4	8.5	4.9	548	42	63	8.1	.00	.00	.00
10	.69	4.1	9.3	8.2	4.9	634	38	51	7.8	.00	.00	.00
11	.47	3.8	9.8	9.3	4.9	355	35	45	7.4	.00	.00	.00
12	.20	3.6	7.8	19	4.9	302	32	39	6.4	.00	.00	.00
13	.07	3.6	6.4	30	4.3	293	30	34	6.8	.00	.00	.00
14	.03	3.8	5.7	23	4.3	228	29	31	6.8	.00	.00	.00
15	.01	4.6	5.1	18	4.3	178	27	28	6.4	.00	.00	.00
16	.00	6.0	4.3	15	4.3	140	25	34	5.5	.00	.00	.00
17	.00	8.2	4.9	13	4.3	114	23	36	3.9	.00	.00	.00
18	.00	7.4	4.6	12	4.1	98	22	36	3.4	.00	.00	.10
19	.00	7.1	4.6	11	4.1	98	21	34	7.1	.00	.00	.80
20	.00	6.0	4.9	9.8	3.8	92	20	30	6.1	.00	.00	4.0
21	.00	5.7	4.6	9.3	5.4	83	19	26	3.7	.00	.00	2.4
22	.00	5.4	4.3	8.5	52	73	18	25	2.6	.00	.00	1.0
23	.00	5.2	4.3	8.2	93	75	17	28	.83	.00	.00	1.0
24	.00	4.9	4.3	7.8	159	93	17	31	.14	.00	.00	2.0
25	.97	4.9	4.3	7.1	100	100	15	29	.04	.00	.00	4.0
26	3.2	4.6	4.3	6.7	79	94	15	29	.02	.00	.00	5.0
27	5.7	4.6	4.6	6.1	82	91	14	29	.03	.00	.00	6.0
28	4.6	4.6	4.6	5.4	153	102	13	28	.01	.00	.00	7.8
29	4.3	4.3	4.6	5.4	---	108	10	26	.00	.00	.00	76
30	3.8	4.1	4.6	5.4	---	113	11	25	.00	.00	.00	39
31	3.6	---	4.6	5.7	---	101	---	22	---	.00	.00	---
TOTAL	35.66	159.5	152.6	335.8	820.0	5706	999	1367	206.07	.00	.00	149.10
MEAN	1.15	5.32	4.92	10.8	29.3	184	33.3	44.1	6.87	.000	.000	4.97
MAX	5.7	8.2	9.8	30	159	634	92	135	21	.00	.00	76
MIN	.00	3.6	3.8	4.6	3.8	73	10	21	.00	.00	.00	.00
AC-FT	71	316	303	666	1630	11320	1980	2710	409	.00	.00	296

CAL YR 1976 TOTAL 56098.36 MEAN 153 MAX 5720 MIN .00 AC-FT 111300
WTR YR 1977 TOTAL 9930.73 MEAN 27.2 MAX 634 MIN .00 AC-FT 19700

NOTE.--No gage-height record Nov. 15 to Dec. 14.

14312000 SOUTH UMPQUA RIVER NEAR BROCKWAY, OR

LOCATION.--Lat 43°08'00", long 123°23'50", in SW¼ sec.15, T.28 S., R.6 W., Douglas County, Hydrologic Unit 17100302, on right bank 10 ft (3 m) downstream from Winston Bridge on State Highway 99, 2.5 mi (4.0 km) northeast of Brockway, 4.2 mi (6.8 km) downstream from Lookingglass Creek, and at mile 132.8 (213.7 km).

DRAINAGE AREA.--1,670 mi^2 (4,325 km^2).

PERIOD OF RECORD.--December 1905 to June 1912, October 1923 to September 1926, January 1942 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1248: 1946(M), 1948(M), 1951. WSP 1448: Drainage area. WRD Oreg. 1972: 1965(M).

GAGE.--Water-stage recorder. Datum of gage is 462.52 ft (140.976 m) above mean sea level (State Highway Department bench mark). Prior to June 24, 1949, nonrecording gage at several sites within 400 ft (122 m) of present site at various datums. June 24, 1949, to Oct. 1, 1970, at datum 461.84 ft (140.769 m) above mean sea level (State Highway Department bench mark).

REMARKS.--Records good. No regulation. Many small diversions for irrigation above station.

AVERAGE DISCHARGE.--43 years (water years 1907-11, 1924-26, 1943-77), 2,905 ft^3/s (82.27 m^3/s), 23.62 in/yr (600 mm/yr), 2,105,000 acre-ft/yr (2.60 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 125,000 ft^3/s (3,540 m^3/s) Dec. 23, 1964, gage height, 34.28 ft (10.449 m); minimum, 16 ft^3/s (0.45 m^3/s) Aug. 23, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 21, 1927, reached a stage of about 31.2 ft (9.51 m), present site and datum, discharge (revised), 89,500 ft^3/s (2,530 m^3/s). Discharge for flood of February 1890, which reached a stage 1.9 ft (0.60 m) higher, according to local resident who lived nearby at time of both floods, has been found to be in error and should not be used.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,810 ft^3/s (136 m^3/s) Mar. 9, 10, gage height, 8.17 ft (2.490 m), no peak above base of 20,000 ft^3/s (566 m^3/s); minimum, 16 ft^3/s (0.45 m^3/s) Aug. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	151	193	163	179	206	2170	1410	664	1130	137	40	99
2	151	204	165	181	206	1940	1880	920	1030	135	38	96
3	151	239	165	224	201	2130	1720	1290	929	135	36	90
4	151	233	163	360	190	2380	1490	1860	850	159	31	81
5	151	209	163	367	183	1720	1600	2390	784	135	29	76
6	149	193	161	316	183	1370	1710	2830	748	139	27	73
7	145	185	161	276	183	1320	1700	2430	700	130	23	71
8	139	176	163	212	188	2140	1820	2030	650	121	24	65
9	137	172	204	183	188	3410	1970	1700	637	109	27	56
10	137	168	283	190	188	4210	1610	1550	586	104	26	54
11	135	165	272	236	183	2790	1300	1840	543	99	24	51
12	131	163	230	327	181	2330	1130	1870	533	93	29	48
13	131	163	206	462	179	2350	1080	1630	492	87	27	46
14	128	170	198	421	179	1960	1130	1390	445	85	25	45
15	126	183	190	375	176	1590	1040	1250	409	79	22	46
16	122	236	183	343	172	1300	960	1320	359	74	20	48
17	121	339	179	304	170	1110	953	2340	335	78	20	51
18	119	279	179	272	165	1010	875	2850	321	74	19	57
19	121	233	176	259	168	1000	795	2360	314	72	18	74
20	121	215	170	262	170	1220	730	1970	296	67	17	98
21	121	201	155	255	212	1360	697	1720	279	59	17	151
22	122	190	153	252	571	1200	680	1530	268	59	18	159
23	121	188	168	242	771	1350	675	1670	247	58	18	149
24	130	183	174	233	1040	1650	664	2440	221	53	30	137
25	143	179	174	224	888	1670	675	2460	203	51	52	151
26	179	179	176	212	736	1540	713	2130	200	52	121	286
27	269	176	176	198	713	1330	691	2280	185	42	188	218
28	236	174	183	183	946	1660	627	2040	171	39	155	286
29	198	168	193	188	---	1740	617	1740	157	41	145	1750
30	185	163	190	190	---	1680	648	1480	147	42	117	1220
31	183	---	181	190	---	1500	---	1270	---	42	107	---
TOTAL	4604	5919	5697	8116	9536	56130	33590	57244	14169	2650	1490	5832
MEAN	149	197	184	262	341	1811	1120	1847	472	85.5	48.1	194
MAX	269	339	283	462	1040	4210	1970	2850	1130	159	188	1750
MIN	119	163	153	179	165	1000	617	664	147	39	17	45
CFSM	.09	.12	.11	.16	.20	1.08	.67	1.11	.28	.05	.03	.12
IN.	.10	.13	.13	.18	.21	1.25	.75	1.28	.32	.06	.03	.13
AC-FT	9130	11740	11300	16100	18910	111300	66630	113500	28100	5260	2960	11570

CAL YR 1976 TOTAL 704969 MEAN 1926 MAX 31600 MIN 110 CFSM 1.15 IN 15.70 AC-FT 1398000
WTR YR 1977 TOTAL 204977 MEAN 562 MAX 4210 MIN 17 CFSM .34 IN 4.57 AC-FT 406600

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR

LOCATION.--Lat 43°13'20", long 123°24'45", in NW¼SE¼ sec.16, T.27 S., R.6 W., Douglas County, Hydrologic Unit 17100302, on left bank, 3.7 mi (6.0 km) west of Roseburg, and at mile 117.7 (189.4 km).

DRAINAGE AREA.--1,798 mi^2 (4,657 km^2).

PERIOD OF RECORD.--Water years 1970 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1970 to current year.
pH: August 1971 to current year.
DISSOLVED OXYGEN: October 1970 to current year.
WATER TEMPERATURES: October 1970 to current year.
TURBIDITY: March 1974 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1970.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 423 micromhos/cm Sept. 18, 1971; minimum, 41 micromhos/cm Mar. 2, 3, 1972.
pH: Maximum, 10.0 units Sept. 8, 9, 1971; minimum, 5.0 units Sept. 29, 1971.
DISSOLVED OXYGEN: Maximum, 16.0 mg/l July 30, 1977; minimum, 1.1 mg/l Sept. 15, 1977.
WATER TEMPERATURES: Maximum, 35.0°C July 16, 1976; minimum, 0.0°C Dec. 14, 16, 1972, Jan. 9, 1974.
TURBIDITY: Maximum recorded, 800 JTU Dec. 27, 1974; minimum recorded, 0 JTU on many days 1974, 1976, 1977.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 233 micromhos/cm Sept. 23; minimum recorded, 72 micromhos/cm Mar. 30.
pH: Maximum recorded, 9.8 units June 15; minimum recorded, 5.5 units Aug. 24.
DISSOLVED OXYGEN: Maximum recorded, 16.0 mg/l July 30; minimum recorded, 1.1 mg/l Sept. 15.
WATER TEMPERATURES: Maximum recorded, 32.0°C June 26; minimum recorded, 3.0°C Jan. 8, 10, 12, 17.
TURBIDITY: Maximum recorded, 55 JTU Mar. 9; minimum recorded, 0 JTU on many days during the year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	DISSOLVED OXYGEN (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
OCT										
20...	1600	--	15.0	8.0	14.0	178	B80	B11	--	17
NOV										
17...	1430	380	14.0	7.4	10.2	142	190	B16	--	18
DEC										
15...	1500	187	6.5	7.4	13.0	164	B1	B12	--	17
JAN										
06...	1030	300	4.0	7.6	14.1	176	41	75	--	18
FEB										
24...	1600	1080	8.5	7.3	10.8	152	B1600	1300	.1	17
MAR										
16...	1230	1120	8.0	7.0	12.2	100	B26	21	--	9.4
APR										
20...	1400	640	14.5	7.4	10.1	98	B1	27	--	6.6
MAY										
18...	1100	2840	12.0	7.8	11.5	68	B600	73	--	9.3
JUN										
22...	1400	270	23.5	8.6	10.8	104	98	68	--	11
JUL										
26...	1030	50	23.5	7.9	6.7	151	B7	>2500	--	11
AUG										
02...	1200	--	--	--	--	--	--	--	--	--
24...	1630	34	23.0	6.8	4.4	200	B2000	1800	--	12
SEP										
23...	1230	137	17.5	7.4	6.4	225	32	110	3.4	17

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)
OCT										
20...	7.2	--	--	69	0	--	--	--	.00	.21
NOV										
17...	7.5	--	--	81	0	--	--	--	.36	.32
DEC										
15...	7.4	--	--	72	0	--	--	--	.12	.12
JAN										
06...	7.3	--	--	79	0	--	--	--	.21	.11
FEB										
24...	7.3	9.5	1.0	75	0	9.9	18	.0	.12	.11
MAR										
16...	4.3	--	--	48	0	--	--	--	.10	.11
APR										
20...	2.0	--	--	45	0	--	--	--	.00	.05
MAY										
18...	3.1	--	--	32	0	--	--	--	--	.03
JUN										
22...	4.3	--	--	52	0	--	--	--	.05	.05
JUL										
26...	5.6	--	--	54	0	--	--	--	--	.59
AUG										
02...	--	--	--	--	--	--	--	--	.79	--
24...	7.0	--	--	69	0	--	--	--	--	1.3
SEP										
23...	7.6	13	1.0	70	0	23	18	.1	--	.34

B: RESULTS BASED ON NON-IDEAL COLONY COUNT

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT										
20...	.19	.26	.45	.66	.29	126	--	72	16	57
NOV										
17...	.08	.12	.20	.52	.21	121	--	76	9	66
DEC										
15...	.19	.16	.35	.47	.19	117	--	73	14	59
JAN										
06...	.14	.23	.37	.48	.15	110	--	75	10	65
FEB										
24...	.09	.37	.46	.57	.11	--	100	73	11	62
MAR										
16...	.03	.26	.29	.40	.07	75	--	41	2	39
APR										
20...	.14	.02	.16	.21	.09	82	--	25	0	37
MAY										
18...	.07	.00	.00	.03	.07	--	--	36	10	26
JUN										
22...	.09	.26	.35	.40	.11	69	--	45	3	43
JUL										
26...	.17	.64	.81	1.4	.52	81	--	51	6	44
AUG										
02...	--	--	--	--	.71	--	--	--	--	--
24...	1.2	.80	2.0	3.3	2.6	125	--	59	2	57
SEP										
23...	.20	.11	.31	.65	.26	--	118	74	16	57

DATE	DISSOLVED ARSENIC (AS) (UG/L)	DISSOLVED BARIUM (BA) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	HEXAVALENT CHROMIUM (CR6) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)
FEB							
24...	0	0	1	0	0	3	50
SEP							
23...	0	0	0	0	0	2	30

DATE	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)
FEB						
24...	1	4	0	30	0	.0
SEP						
23...	3	1	0	10	0	.0

PESTICIDE ANALYSES

DATE	TOTAL ALDRIN (UG/L)	TOTAL LINDANE (UG/L)	TOTAL CHLORDANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DIELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL ETHION (UG/L)	TOTAL TOXAPHENE (UG/L)	TOTAL HEPTACHLOR (UG/L)
OCT , 1976											
20...	.00	.00	.0	.00	.00	.00	.00	.00	--	0	.00
JAN , 1977											
06...	.00	.00	.0	.00	.00	.00	.00	.00	--	0	.00
APR											
20...	.00	.00	.0	.00	.00	.00	.00	.00	.00	0	.00
JUL											
26...	.00	.00	.0	.00	.00	.00	.00	.00	--	0	.00

DATE	TOTAL HEPTACHLOR EPOXIDE (UG/L)	TOTAL MALATHION (UG/L)	TOTAL PARATHION (UG/L)	TOTAL DIAZINON (UG/L)	TOTAL METHYL PARATHION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)	TOTAL TRITHION (UG/L)	TOTAL METHYL TRITHION (UG/L)
OCT , 1976										
20...	.00	--	--	--	--	.00	.00	.00	--	--
JAN , 1977										
06...	.00	--	--	--	--	.00	.09	.00	--	--
APR										
20...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
JUL										
26...	.00	--	--	--	--	.05	.04	.00	--	--

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR

SPECIFIC CONDUCTANCE (MICHOMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	161	99	175	---	119	85	24	87	55	---	---
2	94	160	99	177	83	102	89	23	91	19	---	---
3	141	160	99	177	154	101	96	24	91	20	148	---
4	203	154	98	177	152	101	93	25	---	21	---	---
5	---	150	93	176	151	98	93	59	91	---	---	---
6	---	138	100	---	148	103	92	97	92	---	---	---
7	---	132	101	---	148	107	89	94	93	---	---	---
8	---	128	101	141	147	108	90	93	95	---	---	---
9	---	129	99	139	144	97	87	92	95	---	---	200
10	---	132	128	---	142	94	84	93	96	---	---	---
11	---	130	---	---	139	95	95	92	97	---	---	200
12	---	130	---	---	138	102	111	86	98	---	---	198
13	---	38	33	---	136	104	133	65	100	67	---	198
14	---	24	32	---	136	102	39	83	104	---	---	---
15	---	23	77	---	134	103	---	85	105	---	---	---
16	183	20	154	---	131	105	---	88	106	---	---	---
17	---	59	149	---	129	106	29	88	---	---	---	---
18	---	133	157	---	127	109	29	82	---	---	---	---
19	---	132	158	---	125	113	29	76	---	---	217	---
20	---	129	161	---	123	111	28	75	---	---	---	---
21	---	126	163	---	120	107	54	76	---	---	---	---
22	---	121	166	---	116	105	25	80	129	---	---	---
23	---	117	165	---	---	99	24	81	115	---	---	111
24	---	113	168	---	152	98	23	81	---	---	---	---
25	---	110	169	---	128	95	24	80	---	---	---	---
26	---	107	168	---	118	91	24	82	116	---	---	---
27	---	105	171	---	119	86	23	84	116	155	---	---
28	---	101	173	---	122	87	23	82	116	160	99	---
29	---	102	173	---	---	84	22	82	---	---	73	---
30	159	101	174	---	---	77	22	82	---	---	---	---
31	159	---	175	---	---	82	---	83	---	---	---	---

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9.0	7.6	---	---					---	---	7.4	7.1
2	8.7	7.6	---	---					---	---	7.2	7.2
3	9.0	7.6	---	---					7.5	6.9	7.2	7.1
4	9.1	7.6	---	---					7.5	6.8	7.1	7.1
5	9.1	7.7	---	---					7.4	6.8	7.1	7.0
6	9.2	7.7	---	---					7.4	6.7	7.0	6.9
7	8.4	7.7	---	---					7.4	6.7	6.9	6.8
8	8.2	7.0	---	---					7.4	6.7	6.8	6.7
9	8.2	7.0	---	---					7.4	6.7	7.0	6.8
10	8.4	7.0	---	---					7.5	6.8	7.0	6.9
11	8.3	7.0	---	---					7.5	6.8	7.2	7.0
12	8.2	7.0	---	---					7.6	6.7	7.0	6.9
13	8.3	6.9	---	---					7.6	6.7	7.0	6.9
14	8.3	7.0	---	---					7.5	6.8	7.1	6.9
15	8.2	6.9	---	---					7.6	6.8	7.2	7.1
16	8.1	6.9	---	---					7.6	6.7	7.3	7.1
17	8.1	6.9	---	---					7.6	6.8	7.5	7.1
18	8.1	6.9	7.8	7.3					7.5	6.8	7.5	7.1
19	8.0	6.8	8.0	7.3					7.5	6.8	7.5	7.2
20	8.0	6.9	8.0	7.2					7.5	7.0	8.1	7.1
21	8.2	7.0	8.0	7.3					7.5	7.1	---	---
22	7.5	6.9	7.9	7.6					7.6	7.3	7.6	7.2
23	8.1	6.9	8.0	7.5					7.4	7.2	7.7	7.3
24	7.6	7.0	7.7	7.3					7.4	7.3	7.7	7.3
25	7.8	6.9	8.0	7.4					7.5	7.3	7.6	7.1
26	7.8	7.0	8.0	7.3					7.5	7.3	7.6	7.2
27	7.8	7.0	8.0	7.5					7.4	7.1	7.5	7.2
28	7.9	7.3	7.9	6.5					7.3	7.2	7.7	7.1
29	8.1	7.6	---	---					---	---	---	---
30	---	---	---	---					---	---	---	---
31	---	---	---	---					---	---	---	---
MONTH	9.2	6.8	8.0	6.5					7.6	6.7	8.1	6.7

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	7.7	7.0	---	---	9.1	7.2	---	---
2	---	---	---	---	7.7	6.9	---	---	8.1	7.1	---	---
3	7.4	7.1	---	---	7.7	7.1	---	---	8.0	6.8	---	---
4	7.4	7.1	---	---	7.9	7.1	---	---	8.8	6.9	---	---
5	7.4	7.0	---	---	7.8	7.1	---	---	---	---	---	---
6	7.4	6.9	8.0	7.9	8.0	7.2	---	---	---	---	---	---
7	7.4	6.9	8.0	7.8	7.9	7.3	---	---	---	---	---	---
8	7.5	7.2	7.8	7.6	8.3	7.5	---	---	---	---	---	---
9	7.5	7.1	7.8	7.4	8.5	7.5	---	---	---	---	9.3	7.0
10	7.5	7.1	7.8	7.4	8.7	7.6	---	---	---	---	9.3	7.6
11	7.5	7.1	7.7	7.0	8.9	7.8	---	---	---	---	9.4	7.6
12	7.5	7.2	7.6	7.0	9.3	8.0	---	---	---	---	9.1	6.9
13	---	---	9.6	7.0	9.6	8.0	---	---	---	---	9.3	6.6
14	---	---	7.6	6.9	9.6	8.0	9.0	7.5	---	---	8.5	7.4
15	---	---	7.5	6.9	9.8	7.5	9.1	7.2	---	---	---	---
16	---	---	7.4	7.0	8.7	7.0	9.2	7.1	---	---	---	---
17	---	---	7.4	6.9	8.6	7.0	9.2	7.4	---	---	---	---
18	---	---	7.4	7.1	8.6	6.9	9.1	7.5	---	---	---	---
19	---	---	7.3	7.0	8.7	6.9	9.3	7.2	---	---	---	---
20	---	---	7.3	6.7	8.6	7.0	9.4	7.5	---	---	---	---
21	---	---	7.3	6.7	8.7	7.0	9.5	7.4	---	---	---	---
22	---	---	7.3	7.0	8.7	7.0	9.6	7.4	---	---	---	---
23	---	---	7.4	5.9	8.8	7.1	9.6	7.6	7.0	6.3	---	---
24	---	---	7.4	6.7	8.8	7.1	9.7	7.6	6.9	5.5	---	---
25	---	---	7.5	7.2	8.7	7.2	9.6	7.6	6.8	6.0	---	---
26	---	---	7.5	7.0	8.8	7.3	9.0	7.6	6.9	6.4	---	---
27	---	---	7.5	7.0	8.9	7.2	9.1	6.9	6.7	6.4	---	---
28	---	---	7.5	6.9	8.8	7.2	9.0	7.0	6.6	5.9	---	---
29	---	---	7.5	6.8	8.5	7.1	9.1	7.0	---	6.0	---	---
30	---	---	7.6	6.9	8.7	7.3	9.2	7.1	---	---	---	---
31	---	---	7.6	6.9	---	---	9.2	7.1	---	---	---	---
MONTH	7.5	6.9	9.6	5.9	9.8	6.9	9.7	6.9	9.1	5.5	9.4	6.6

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.7	6.8	9.8	9.5	6.2	7.3	12.1	11.2	11.5	13.4	12.4	12.8
2	11.9	6.7	9.1	9.4	7.9	8.8	12.2	11.5	11.8	13.8	12.7	13.2
3	13.2	7.2	9.7	10.3	7.7	8.8	12.6	11.4	12.0	14.1	12.8	13.3
4	13.9	7.3	10.2	10.4	7.8	9.0	12.4	10.9	11.6	14.0	13.0	13.4
5	13.4	7.9	10.2	9.5	7.6	8.6	12.3	11.1	11.6	14.0	13.1	13.5
6	13.1	7.5	9.9	10.2	7.1	8.6	12.4	11.0	11.6	14.0	12.5	13.3
7	13.2	7.6	10.0	9.6	7.2	8.2	12.2	10.9	11.5	13.9	12.4	13.4
8	13.3	7.3	9.9	9.3	7.1	8.0	11.9	10.4	11.1	14.1	12.7	13.3
9	12.6	6.8	9.3	10.9	7.1	9.0	11.4	9.8	10.5	14.2	12.7	13.3
10	13.3	6.6	9.7	10.4	8.3	9.2	11.1	9.6	10.1	13.3	12.9	13.5
11	13.2	6.6	9.3	10.5	8.0	8.9	10.9	9.5	10.0	13.6	12.7	13.1
12	12.4	6.3	8.8	9.7	7.7	8.5	---	---	---	13.2	12.5	12.7
13	11.2	5.9	8.3	---	---	---	---	---	---	13.2	12.5	12.7
14	12.9	6.3	9.2	---	---	---	---	---	---	13.6	12.1	12.8
15	12.5	6.0	8.9	---	---	---	---	---	---	13.5	11.9	12.5
16	11.7	5.5	8.3	11.9	7.2	9.3	13.6	11.6	12.4	13.0	11.8	12.3
17	11.2	5.8	8.1	10.2	6.7	9.2	13.1	11.7	12.3	13.4	11.7	12.2
18	10.6	5.3	7.7	10.9	8.9	9.7	13.1	11.7	12.3	12.7	11.5	12.0
19	10.2	4.8	7.2	11.3	8.8	9.9	13.1	11.7	12.3	13.4	11.3	12.2
20	13.0	7.4	9.4	11.6	9.1	10.2	13.1	11.8	12.3	13.2	11.4	12.2
21	9.3	5.7	7.4	12.3	9.9	10.9	13.0	11.8	12.3	14.6	11.6	12.9
22	7.5	5.7	6.6	12.3	10.4	11.2	12.8	11.8	12.2	14.1	12.7	12.4
23	9.6	5.8	7.5	12.2	10.4	11.2	12.8	11.6	12.1	14.1	12.4	13.6
24	8.0	6.2	7.0	11.8	10.3	10.9	12.8	11.6	12.1	14.7	13.0	13.8
25	10.1	6.4	8.4	11.9	10.2	11.0	12.4	11.6	11.9	14.9	12.9	13.9
26	8.4	6.0	7.0	---	---	---	12.9	11.8	12.2	15.3	13.4	14.2
27	9.3	6.0	7.5	---	---	---	12.9	11.7	12.2	15.3	13.5	14.2
28	8.7	8.2	8.4	---	---	---	12.8	11.9	12.2	15.0	13.3	14.4
29	8.6	7.8	8.4	10.0	8.8	9.4	13.3	11.9	12.3	15.1	13.2	14.1
30	8.9	7.1	8.2	11.7	10.3	11.0	12.9	12.1	12.4	15.0	13.1	14.1
31	9.8	6.6	8.7	---	---	---	13.2	12.2	12.7	15.0	13.2	14.1
MONTH	13.9	4.8	8.6	12.3	6.2	9.5	13.6	9.5	11.8	15.3	11.3	13.2

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	14.3	12.9	13.4	12.0	9.6	11.6	10.8	9.6	10.2	---	---	---
2	13.2	11.8	12.5	10.3	8.9	9.6	10.9	9.7	10.3	---	---	---
3	13.5	11.3	12.2	9.7	9.1	9.4	11.1	10.3	10.7	---	---	---
4	14.0	11.5	12.4	11.8	8.2	10.3	11.0	10.0	10.5	---	---	---
5	13.6	11.8	0.4	11.7	10.7	11.3	10.9	10.0	10.4	---	---	---
6	14.1	11.8	12.8	11.3	10.9	11.1	10.7	9.8	10.3	10.9	10.0	10.4
7	14.1	11.7	12.7	11.6	11.0	11.3	10.2	9.3	9.7	10.8	10.3	10.5
8	13.8	11.6	12.6	11.7	11.2	11.4	9.2	8.5	8.8	11.2	10.3	10.7
9	14.0	11.6	12.6	11.5	11.0	11.4	9.1	8.2	8.6	10.8	9.9	10.4
10	13.9	11.4	12.5	11.5	11.3	11.4	9.0	8.1	8.6	10.5	9.6	10.0
11	13.7	11.2	12.2	11.9	11.4	11.7	8.7	8.0	8.3	11.0	9.5	10.2
12	13.1	10.4	11.6	12.0	11.6	11.8	8.6	7.5	8.1	11.2	9.8	10.5
13	12.7	10.4	11.4	12.2	11.7	12.0	---	---	---	11.1	8.9	10.2
14	12.1	10.0	10.9	12.4	11.8	12.1	---	---	---	10.9	9.8	10.3
15	11.7	9.7	10.5	12.3	11.6	12.0	---	---	---	10.8	9.8	10.3
16	11.5	9.3	10.3	12.1	11.6	11.9	---	---	---	10.6	9.8	10.2
17	11.4	9.3	10.2	12.8	12.0	12.4	---	---	---	11.1	10.0	10.5
18	11.5	9.5	10.4	13.0	12.2	12.6	---	---	---	11.0	10.3	10.6
19	11.5	9.5	10.4	13.1	12.1	12.7	---	---	---	11.3	10.4	10.8
20	11.0	9.5	10.2	13.1	11.7	12.6	---	---	---	10.7	9.6	10.2
21	10.9	9.8	10.2	12.4	11.6	12.1	---	---	---	10.2	9.0	9.6
22	10.9	9.7	10.2	12.3	10.0	11.2	---	---	---	9.5	8.7	9.1
23	10.9	10.1	10.5	10.7	9.8	10.2	---	---	---	10.4	9.0	9.6
24	10.8	10.4	10.6	10.7	10.0	10.3	---	---	---	10.7	9.5	10.1
25	11.6	11.1	11.3	11.1	10.1	10.6	---	---	---	10.2	8.8	9.8
26	12.3	11.6	11.8	10.9	10.0	10.4	---	---	---	10.5	9.4	9.9
27	12.6	11.6	12.0	10.6	9.9	10.2	---	---	---	10.7	9.4	10.0
28	12.1	11.6	11.8	10.6	9.9	10.3	---	---	---	10.6	9.5	10.0
29	---	---	---	10.6	9.9	10.2	---	---	---	10.5	9.3	9.8
30	---	---	---	10.7	9.9	10.3	---	---	---	9.7	8.6	9.2
31	---	---	---	10.8	10.2	10.5	---	---	---	9.7	8.1	8.9
MONTH	14.3	9.3	11.1	13.1	8.2	11.2	11.1	7.5	9.5	11.3	8.1	10.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.2	8.8	9.5	---	---	---	11.0	8.6	10.0	---	---	---
2	10.5	8.6	9.6	---	---	---	10.1	8.3	9.4	---	---	---
3	10.2	8.3	9.2	---	---	---	12.5	5.4	9.6	---	---	---
4	10.6	8.5	9.4	---	---	---	10.5	6.7	9.3	---	---	---
5	10.6	8.2	9.4	---	---	---	---	---	---	---	---	---
6	11.0	8.3	9.5	---	---	---	---	---	---	---	---	---
7	10.8	7.9	9.3	---	---	---	---	---	---	---	---	---
8	10.9	7.9	9.3	---	---	---	---	---	---	---	---	---
9	11.3	8.1	9.5	---	---	---	---	---	---	14.0	4.1	8.9
10	11.6	8.0	9.6	---	---	---	---	---	---	14.4	4.4	9.4
11	11.7	8.5	9.9	---	---	---	---	---	---	14.5	4.1	9.2
12	11.6	8.6	9.9	---	---	---	---	---	---	12.6	4.0	8.2
13	12.0	8.6	10.3	---	---	---	---	---	---	11.3	3.3	7.1
14	13.5	8.9	11.0	14.7	4.4	9.4	---	---	---	5.4	1.4	3.3
15	13.1	7.2	9.7	14.4	4.0	9.1	---	---	---	6.9	1.1	3.7
16	11.5	6.6	8.9	14.7	3.6	8.3	---	---	---	9.2	2.6	5.7
17	11.6	6.6	8.7	15.1	3.7	8.8	---	---	---	8.4	3.1	5.7
18	11.9	6.5	9.0	12.3	3.4	7.6	---	---	---	6.4	3.0	4.9
19	12.7	7.1	9.6	14.0	3.3	8.5	---	---	---	7.5	3.3	5.5
20	12.0	7.1	9.3	13.9	3.5	8.3	---	---	---	9.1	3.4	6.1
21	13.1	6.8	9.5	14.0	3.3	8.4	---	---	---	10.8	4.3	7.4
22	11.5	6.0	8.5	14.5	3.5	8.4	---	---	---	10.7	5.5	7.9
23	12.1	5.8	8.7	14.0	3.2	8.2	6.1	3.6	5.0	8.3	6.0	7.1
24	12.0	5.8	8.8	12.9	3.1	7.7	8.5	3.6	5.5	11.0	4.6	8.9
25	12.0	5.8	8.4	12.0	3.1	6.8	9.0	4.2	7.5	13.4	9.7	10.9
26	12.6	6.0	9.3	15.1	3.3	8.5	10.5	5.0	6.8	14.1	9.7	12.0
27	13.2	5.9	9.6	15.9	4.2	9.7	11.4	4.7	7.1	10.4	9.2	9.7
28	12.2	5.9	9.1	14.1	3.9	8.8	11.5	10.1	10.8	10.8	9.1	9.8
29	11.1	5.4	8.4	14.8	4.1	9.4	---	---	---	11.1	3.9	8.0
30	12.3	5.4	8.7	16.0	4.7	9.8	---	---	---	---	---	---
31	---	---	---	14.8	4.3	9.0	---	---	---	---	---	---
MONTH	13.5	5.4	9.3	16.0	3.1	8.6	12.5	3.6	8.1	14.5	1.1	7.6

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	22.5	18.5	13.5	12.5	5.0	4.5	---	---	7.5	5.5	10.5	9.0
2	20.5	19.0	13.5	13.0	5.0	4.0	---	---	8.5	6.0	9.0	8.5
3	20.0	17.5	14.0	13.0	4.5	4.5	---	---	8.5	6.5	9.0	8.0
4	19.5	16.5	14.5	13.0	5.0	4.0	---	---	9.5	7.0	10.0	7.5
5	19.0	15.5	14.0	13.5	5.5	4.0	---	---	9.0	7.0	10.5	8.0
6	19.0	15.5	14.5	14.0	5.0	4.0	---	---	9.5	7.5	10.0	9.0
7	19.5	15.5	14.0	13.0	5.0	4.0	8.0	4.5	9.0	7.5	9.5	8.5
8	18.0	16.0	14.0	13.0	6.0	4.0	9.0	3.0	10.0	8.0	10.5	8.5
9	18.0	15.5	14.0	13.0	5.5	4.5	8.0	3.5	10.5	8.5	9.0	8.0
10	18.5	15.5	13.5	12.5	6.5	4.0	5.0	3.0	11.5	9.0	9.0	7.0
11	19.0	16.5	13.5	12.5	---	---	6.0	3.5	12.5	9.5	10.0	7.0
12	18.5	15.0	---	---	---	---	4.5	3.0	12.5	10.5	8.5	7.5
13	19.0	15.0	---	---	---	---	5.0	3.5	13.0	11.0	9.0	7.0
14	18.5	15.0	---	---	---	---	5.5	4.0	14.0	11.0	8.0	6.5
15	18.0	14.5	---	---	---	---	6.5	3.5	13.5	11.0	8.0	6.5
16	17.0	14.5	---	---	---	---	5.5	3.5	14.0	11.0	9.0	6.0
17	16.5	13.5	---	---	---	---	6.0	3.0	15.0	11.5	10.5	9.5
18	16.0	12.5	---	---	---	---	6.0	3.5	14.5	11.0	10.5	9.5
19	15.5	12.5	---	---	---	---	6.0	4.0	14.5	10.5	12.5	10.5
20	14.5	12.0	---	---	---	---	6.0	4.0	13.0	11.5	18.0	12.0
21	14.0	11.0	---	---	---	---	9.0	4.0	11.5	10.5	---	---
22	12.5	11.5	---	---	---	---	8.5	7.0	12.0	10.0	12.5	9.5
23	12.5	10.0	---	---	---	---	9.0	7.0	10.0	9.0	12.0	10.0
24	11.5	10.5	---	---	---	---	7.5	7.0	9.0	8.5	11.5	9.5
25	12.5	10.5	---	---	---	---	9.0	6.0	8.5	7.5	11.5	9.5
26	12.5	10.5	10.5	6.5	---	---	8.0	5.5	9.0	7.5	11.5	9.0
27	12.5	10.0	9.0	7.5	---	---	7.0	4.5	10.0	8.5	11.5	9.5
28	12.0	10.5	7.5	5.0	---	---	8.5	---	10.0	9.0	11.0	9.0
29	12.0	11.0	5.5	4.5	---	---	---	4.5	---	---	14.5	9.0
30	13.0	11.5	5.5	4.5	---	---	9.5	---	---	---	20.0	15.0
31	13.0	11.0	---	---	---	---	7.0	5.0	---	---	19.0	17.0
MONTH	22.5	10.0	14.5	4.5	6.5	4.0	9.5	3.0	15.0	5.5	20.0	6.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	20.0	17.5	---	---	19.5	16.0	---	---	29.0	25.5	---	---
2	21.0	6.0	---	---	21.0	17.0	---	---	28.5	26.5	---	---
3	11.5	5.5	---	---	19.5	17.0	---	---	30.0	25.0	---	---
4	14.0	9.5	---	---	19.0	12.0	---	---	29.0	24.5	---	---
5	16.0	10.5	---	---	22.0	15.5	---	---	28.0	23.0	---	---
6	17.0	12.0	13.5	11.0	24.0	21.0	---	---	28.0	22.0	---	---
7	17.0	13.0	13.5	10.5	25.0	23.0	---	---	27.0	20.5	---	---
8	15.0	13.5	15.0	11.0	23.5	21.0	---	---	28.0	21.0	---	---
9	13.5	12.0	15.5	11.5	22.5	19.5	---	---	26.0	21.0	23.5	20.0
10	12.5	11.0	15.0	13.5	22.5	19.5	---	---	27.0	21.0	24.0	20.5
11	14.5	11.5	16.0	13.5	21.0	19.0	---	---	28.5	21.5	24.5	21.0
12	15.5	11.0	15.0	12.5	21.5	17.5	---	---	28.0	22.5	25.0	21.0
13	---	---	15.0	10.0	23.0	17.5	---	---	26.5	21.5	25.5	22.0
14	---	---	16.0	13.5	24.5	19.0	26.5	22.0	25.5	20.5	24.0	21.5
15	---	---	16.0	13.5	28.0	19.5	27.0	23.0	26.5	20.0	21.5	19.0
16	---	---	15.5	13.5	30.0	23.5	28.0	24.0	---	---	20.5	18.5
17	---	---	14.5	13.0	29.0	25.0	27.5	23.5	---	---	20.0	19.0
18	---	---	13.5	11.0	28.0	24.5	26.0	24.0	---	---	20.0	19.0
19	---	---	16.0	10.5	28.5	24.0	27.0	22.5	---	---	20.0	18.5
20	---	---	15.5	11.5	26.5	24.0	27.5	23.5	---	---	19.5	17.5
21	---	---	17.0	14.5	30.0	23.0	27.5	23.5	---	---	19.5	17.0
22	---	---	16.0	13.5	31.0	25.5	28.5	24.0	---	---	20.0	16.5
23	---	---	14.0	13.0	31.5	26.0	28.5	25.0	26.5	22.0	18.5	17.5
24	---	---	14.5	12.5	32.0	26.0	28.5	25.5	24.5	22.5	19.0	16.0
25	---	---	14.5	12.0	30.5	27.0	26.0	24.0	23.0	21.5	18.5	16.5
26	---	---	15.0	12.0	32.0	26.0	27.0	23.5	22.5	20.5	19.0	14.5
27	---	---	14.0	12.0	31.0	25.5	27.5	23.5	22.5	20.5	19.0	16.0
28	---	---	15.5	12.0	31.5	26.0	27.0	23.5	27.5	21.0	17.0	16.0
29	---	---	16.5	12.5	29.0	19.0	27.5	23.0	---	---	18.5	15.0
30	---	---	18.0	14.0	24.5	20.5	28.5	24.0	---	---	---	---
31	---	---	20.0	16.0	---	---	29.0	25.0	---	---	---	---
MONTH	21.0	5.5	20.0	10.0	32.0	12.0	29.0	22.0	30.0	20.0	25.5	14.5

UMPQUA RIVER BASIN

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR

TURBIDITY (JTU), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	1	0	1	15	10	10	1	0	1	1	0	1
2	1	0	1	10	3	6	1	0	1	2	0	1
3	1	1	1	2	1	1	1	0	1	4	2	3
4	2	0	1	1	0	1	1	0	1	7	3	5
5	2	1	1	1	1	1	1	0	1	3	2	3
6	1	1	1	1	0	1	2	0	1	3	3	3
7	2	2	2	1	0	1	1	0	1	3	2	2
8	3	2	2	1	0	1	2	0	1	3	1	2
9	3	2	3	1	0	1	6	2	3	2	0	2
10	4	3	3	2	0	1	6	1	3	2	1	2
11	4	3	4	1	0	1	---	---	---	5	1	2
12	4	3	4	---	---	---	---	---	---	15	4	9
13	5	4	4	---	---	---	---	---	---	9	4	6
14	5	5	5	---	---	---	---	---	---	5	4	5
15	6	5	6	---	---	---	---	---	---	6	3	5
16	6	5	6	---	---	---	1	0	1	6	6	6
17	7	5	6	---	---	---	1	0	1	6	4	5
18	7	6	7	2	0	2	1	0	1	4	3	4
19	7	6	7	2	0	1	1	0	1	4	3	4
20	8	6	7	2	0	1	5	0	1	4	3	3
21	8	7	7	1	0	1	1	0	1	4	2	3
22	8	7	8	1	0	1	1	0	1	3	2	2
23	9	8	9	1	0	1	1	0	1	3	2	2
24	9	9	9	1	0	1	1	0	1	2	2	2
25	---	---	---	1	0	1	1	0	1	2	1	2
26	10	9	10	1	0	1	2	0	1	2	1	2
27	10	3	8	1	0	1	2	1	2	2	1	2
28	10	5	9	1	0	1	2	0	1	2	1	2
29	10	7	10	1	0	0	1	0	1	2	1	2
30	10	6	10	1	0	1	1	0	1	2	0	2
31	10	1	4	---	---	---	1	0	1	2	1	1
MONTH	10	0	5	15	0	1	6	0	1	15	0	3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	3	2	2	20	10	15	---	---	---	---	---	---
2	3	2	3	20	15	20	---	---	---	---	---	---
3	2	1	2	20	15	15	4	4	4	---	---	---
4	2	1	2	25	20	20	4	4	4	---	---	---
5	2	1	1	20	15	20	7	6	6	---	---	---
6	2	1	1	15	10	10	6	5	5	20	6	10
7	2	1	1	10	8	9	5	4	5	7	6	7
8	2	1	1	10	7	9	6	5	5	7	5	5
9	2	1	1	55	10	25	5	4	5	5	3	4
10	2	1	1	35	25	45	5	4	5	3	2	2
11	2	1	1	25	15	20	5	4	4	7	2	5
12	2	1	1	15	10	10	4	3	4	7	6	6
13	2	1	1	10	9	10	---	---	---	9	4	7
14	2	1	1	10	8	9	---	---	---	10	6	8
15	4	1	2	9	6	7	---	---	---	6	5	6
16	2	1	2	7	6	7	---	---	---	8	5	6
17	2	1	2	6	5	6	---	---	---	9	5	7
18	2	1	2	6	4	5	---	---	---	15	7	10
19	2	1	2	5	4	5	---	---	---	15	9	10
20	2	1	2	4	3	4	---	---	---	10	9	9
21	4	1	2	4	3	3	---	---	---	9	6	8
22	7	4	6	---	---	---	---	---	---	7	5	6
23	10	4	6	---	---	---	---	---	---	6	4	5
24	15	8	10	---	---	---	---	---	---	6	5	5
25	15	9	10	---	---	---	---	---	---	10	7	9
26	15	10	10	---	---	---	---	---	---	10	8	10
27	10	9	10	4	4	4	---	---	---	10	7	8
28	10	9	10	---	---	---	---	---	---	8	5	7
29	---	---	---	---	---	---	---	---	---	7	5	6
30	---	---	---	---	---	---	---	---	---	6	5	5
31	---	---	---	---	---	---	---	---	---	5	4	4
MONTH	15	1	3	55	3	10	7	3	4	20	2	6

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR

TURBIDITY (JTU), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6	3	4	---	---	---	---	---	---	---	---	---
2	4	3	3	---	---	---	---	---	---	---	---	---
3	3	2	3	---	---	---	---	---	---	---	---	---
4	3	4	4	---	---	---	---	---	---	---	---	---
5	2	2	2	---	---	---	---	---	---	---	---	---
6	2	1	2	---	---	---	---	---	---	---	---	---
7	2	1	1	---	---	---	---	---	---	---	---	---
8	2	1	1	---	---	---	---	---	---	---	---	---
9	2	1	2	---	---	---	---	---	---	1	1	1
10	2	1	1	---	---	---	2	1	1	1	0	1
11	1	1	1	---	---	---	2	0	1	1	0	1
12	1	1	1	---	---	---	2	1	1	2	0	1
13	1	0	1	---	---	---	2	1	1	1	0	1
14	1	0	1	1	1	1	3	1	1	1	0	1
15	8	0	2	1	1	1	2	1	2	3	0	1
16	9	1	4	1	1	1	---	---	---	1	1	1
17	8	1	3	1	1	1	---	---	---	1	1	1
18	7	1	2	2	1	1	---	---	---	1	1	1
19	1	0	1	1	1	1	---	---	---	1	0	1
20	1	0	1	1	1	1	---	---	---	1	0	1
21	2	0	1	1	1	1	---	---	---	1	0	1
22	2	0	1	1	1	1	---	---	---	1	1	1
23	1	0	1	1	1	1	3	1	2	1	0	1
24	9	0	4	1	1	1	3	2	2	6	1	2
25	1	0	1	1	1	1	2	1	2	9	1	4
26	1	0	1	1	1	1	2	1	1	20	2	6
27	3	0	1	1	0	1	3	1	2	4	0	2
28	6	2	4	1	0	1	8	4	7	4	0	2
29	20	4	15	1	1	1	8	8	8	5	3	5
30	3	1	2	1	1	1	---	---	---	5	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	20	0	2	2	0	1	8	1	2	20	0	1

14312400 SILENT CREEK NEAR DIAMOND LAKE, OR

LOCATION.--Lat 43°07'36", long 122°09'33", in T.28 S., R.6 E. (unsurveyed), Douglas County, Hydrologic Unit 17100301, in Umpqua National Forest, on right bank 25 ft (8 m) upstream from Summer Homes Road and 3.7 mi (6.0 km) southwest of town of Diamond Lake.

DRAINAGE AREA.--8.24 mi^2 (21.34 km^2).

PERIOD OF RECORD.--October 1971 to September 1977 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,190 ft (1,580 m), from topographic map.

REMARKS.--Records excellent. No regulation or diversion above station.

AVERAGE DISCHARGE.--6 years, 31.4 ft^3/s (0.889 m^3/s), 22,750 acre-ft/yr (28.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 65 ft^3/s (1.84 m^3/s) Sept. 13, 1975, gage height, 3.84 ft (1.170 m); minimum, 24 ft^3/s (0.68 m^3/s) Jan. 6-14, 1974, July 22 to Sept. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 33 ft^3/s (0.93 m^3/s) Sept. 28, gage height, 3.39 ft (1.033 m); minimum, 24 ft^3/s (0.68 m^3/s) July 22 to Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	29	28	28	27	27	27	29	26	26	24	24
2	29	29	28	28	27	27	27	29	26	26	24	24
3	29	29	29	28	27	27	27	29	26	26	24	24
4	29	29	29	28	27	27	28	28	26	25	24	24
5	29	29	29	28	27	27	28	28	26	25	24	24
6	29	29	29	28	27	27	28	28	26	25	24	24
7	29	29	29	28	26	27	28	28	26	25	24	24
8	29	29	29	28	27	27	28	28	26	25	24	24
9	29	29	29	28	27	27	28	28	26	25	24	24
10	29	29	29	28	27	27	28	28	27	25	24	24
11	29	29	29	28	27	27	28	28	27	25	24	24
12	29	29	29	28	27	27	28	28	27	25	24	24
13	29	29	29	28	27	27	28	28	26	25	24	24
14	29	29	29	28	27	27	28	28	26	25	24	25
15	29	29	29	28	27	27	29	28	26	25	24	25
16	29	29	29	28	27	27	29	28	26	25	24	25
17	29	29	29	28	27	27	29	27	26	25	24	25
18	28	29	29	28	27	27	29	27	26	25	24	25
19	28	28	29	28	28	27	28	27	26	25	24	25
20	28	28	29	28	28	27	29	27	26	25	24	25
21	29	28	29	28	28	27	29	27	26	25	24	25
22	29	28	29	28	28	27	29	27	26	24	24	25
23	28	28	29	28	28	27	28	27	26	24	25	25
24	29	28	29	28	27	27	29	27	26	24	25	25
25	29	28	29	27	27	27	29	27	26	24	25	25
26	29	28	29	27	27	27	29	28	26	24	25	26
27	29	28	29	27	27	27	29	27	26	24	24	26
28	29	28	29	27	28	27	29	26	26	24	24	26
29	29	28	29	27	---	27	29	26	26	24	24	26
30	29	28	28	27	---	27	29	26	26	24	24	26
31	29	---	28	27	---	27	---	26	---	24	24	---
TOTAL	895	858	895	861	761	837	851	853	783	768	748	742
MEAN	28.9	28.6	28.9	27.8	27.2	27.0	28.4	27.5	26.1	24.8	24.1	24.7
MAX	29	29	29	28	28	27	29	29	27	26	25	26
MIN	28	28	28	27	26	27	27	26	26	24	24	24
AC-FT	1780	1700	1780	1710	1510	1660	1690	1690	1550	1520	1480	1470

CAL YR 1976 TOTAL 10956 MEAN 29.9 MAX 36 MIN 28 AC-FT 21730
WTR YR 1977 TOTAL 9852 MEAN 27.0 MAX 29 MIN 24 AC-FT 19540

14312450 DIAMOND LAKE NEAR DIAMOND LAKE, OR

LOCATION.--Lat 43°08'22", long 122°08'10", T.28 S., R.6 E. (unsurveyed), Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, at shore of lake, at mouth of Short Creek and 2.7 mi (4.3 km) south of town of Diamond Lake.

DRAINAGE AREA.--54.9 mi² (142.2 km²).

PERIOD OF RECORD.--October 1971 to September 1977 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 5,180.27 ft (1,578.946 m) above mean sea level. Gage readings have been reduced to elevations above mean sea level.

REMARKS.--Records good. Lake regulated by flash boards at outlet (Lake Creek). Flash boards are removed each fall and replaced after runoff each summer. Insignificant diversion from tributary streams for domestic use.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 77,140 acre-ft (95.1 hm³) June 5, 6, 1974, elevation, 5,183.67 ft (1,579.983 m); minimum, 73,020 acre-ft (90.0 hm³) Nov. 9, 1971, elevation, 5,182.38 ft (1,579.589 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 76,470 acre-ft (94.3 hm³) Mar. 9, elevation, 5,183.46 ft (1,579.919 m); minimum, 73,690 acre-ft (90.9 hm³) Dec. 7, elevation, 5,182.59 ft (1,579.653 m).

ELEVATION, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5182.96	5183.15	5182.63	5182.68	5182.91	5183.32	5183.33	5183.28	5183.28	5183.21	5183.11	5183.14
2	5182.98	5183.12	5182.62	5182.70	5182.92	5183.35	5183.30	5183.29	5183.26	5183.19	5183.11	5183.13
3	5182.99	5183.08	5182.62	5182.73	5182.92	5183.36	5183.29	5183.35	5183.25	5183.18	5183.11	5183.13
4	5183.01	5183.05	5182.61	5182.74	5182.93	5183.35	5183.29	5183.35	5183.24	5183.17	5183.10	5183.13
5	5183.02	5183.02	5182.61	5182.73	5182.95	5183.34	5183.28	5183.36	5183.24	5183.15	5183.09	5183.13
6	5183.04	5182.98	5182.60	5182.72	5182.97	5183.33	5183.27	5183.35	5183.24	5183.15	5183.09	5183.13
7	5183.05	5182.95	5182.59	5182.72	5182.97	5183.38	5183.27	5183.34	5183.23	5183.15	5183.09	5183.13
8	5183.07	5182.92	5182.64	5182.71	5182.97	5183.41	5183.29	5183.32	5183.22	5183.15	5183.09	5183.13
9	5183.08	5182.90	5182.63	5182.71	5182.97	5183.45	5183.29	5183.36	5183.21	5183.15	5183.08	5183.13
10	5183.10	5182.88	5182.63	5182.72	5182.98	5183.43	5183.28	5183.36	5183.32	5183.15	5183.07	5183.12
11	5183.12	5182.85	5182.62	5182.73	5183.00	5183.41	5183.28	5183.35	5183.31	5183.15	5183.07	5183.12
12	5183.13	5182.82	5182.62	5182.74	5183.00	5183.45	5183.29	5183.33	5183.35	5183.15	5183.09	5183.12
13	5183.14	5182.83	5182.62	5182.75	5183.01	5183.42	5183.30	5183.33	5183.34	5183.14	5183.08	5183.12
14	5183.16	5182.82	5182.62	5182.75	5183.02	5183.40	5183.30	5183.32	5183.32	5183.14	5183.08	5183.13
15	5183.17	5182.86	5182.61	5182.75	5183.02	5183.38	5183.30	5183.33	5183.31	5183.14	5183.08	5183.13
16	5183.18	5182.83	5182.60	5182.74	5183.02	5183.36	5183.30	5183.34	5183.30	5183.13	5183.08	5183.12
17	5183.17	5182.82	5182.60	5182.73	5183.02	5183.35	5183.31	5183.33	5183.30	5183.12	5183.07	5183.13
18	5183.16	5182.80	5182.61	5182.73	5183.02	5183.35	5183.28	5183.32	5183.29	5183.13	5183.07	5183.12
19	5183.17	5182.77	5182.61	5182.73	5183.02	5183.35	5183.28	5183.30	5183.27	5183.12	5183.07	5183.16
20	5183.17	5182.76	5182.61	5182.72	5183.05	5183.33	5183.27	5183.30	5183.27	5183.12	5183.07	5183.17
21	5183.17	5182.75	5182.62	5182.72	5183.12	5183.32	5183.26	5183.28	5183.26	5183.12	5183.06	5183.13
22	5183.18	5182.73	5182.62	5182.73	5183.16	5183.30	5183.26	5183.33	5183.25	5183.12	5183.05	5183.10
23	5183.17	5182.72	5182.62	5182.76	5183.20	5183.32	5183.24	5183.35	5183.24	5183.13	5183.04	5183.16
24	5183.21	5182.71	5182.62	5182.78	5183.21	5183.32	5183.24	5183.33	5183.24	5183.13	5183.12	5183.12
25	5183.23	5182.70	5182.64	5182.79	5183.23	5183.32	5183.24	5183.34	5183.24	5183.12	5183.15	5183.12
26	5183.20	5182.68	5182.66	5182.82	5183.24	5183.31	5183.24	5183.35	5183.22	5183.12	5183.14	5183.11
27	5183.19	5182.66	5182.66	5182.85	5183.28	5183.35	5183.24	5183.35	5183.20	5183.13	5183.13	5183.12
28	5183.19	5182.65	5182.65	5182.87	5183.32	5183.36	5183.25	5183.33	5183.20	5183.12	5183.13	5183.20
29	5183.18	5182.64	5182.65	5182.87	---	5183.36	5183.26	5183.32	5183.18	5183.10	5183.14	5183.25
30	5183.07	5182.64	5182.65	5182.88	---	5183.35	5183.26	5183.30	5183.17	5183.10	5183.14	5183.23
31	5183.17	---	5182.65	5182.90	---	5183.34	---	5183.30	---	5183.11	5183.12	---
MEAN	5183.12	5182.84	5182.62	5182.76	5183.05	5183.36	5183.28	5183.33	5183.26	5183.14	5183.09	5183.14
MAX	5183.23	5183.15	5182.66	5182.90	5183.32	5183.45	5183.33	5183.36	5183.35	5183.21	5183.15	5183.25
MIN	5182.96	5182.64	5182.59	5182.68	5182.91	5183.30	5183.24	5183.28	5183.17	5183.10	5183.04	5183.10
(†)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
(‡)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible

CAL YR 1976 MEAN [illegible] MAX 5183.23 MIN [illegible] AC-FT‡ [illegible]
WTR YR 1977 MEAN [illegible] MAX 5183.45 MIN 5182.59 AC-FT‡ [illegible]

† Contents, in acre-feet, at end of month.
‡ Change in contents, in acre-feet.

14312500 LAKE CREEK NEAR DIAMOND LAKE, OR

LOCATION.--Lat 43°11'10", long 122°09'55", in NW¼SW¼ sec.30, T.27 S., R.6 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, on right bank 260 ft (79 m) downstream from outlet of Diamond Lake, 1.6 mi (2.6 km) northwest of town of Diamond Lake, and at mile 10.7 (17.2 km).

DRAINAGE AREA.--54.9 mi^2 (142.2 km^2).

PERIOD OF RECORD.--May 1922 to September 1925 (no winter records), October 1926 to September 1929, April, July, August 1930, October 1930 to September 1953, October 1971 to current year. Prior to October 1971 published as "at Diamond Lake, near Fort Klamath."

GAGE.--Water-stage recorder. Altitude of gage is 5,180 ft (1,580 m), from river-profile map. Prior to May 26, 1931, nonrecording gage at site 300 ft (91 m) downstream at different datum. May 26, 1931, to Oct. 6, 1933, nonrecording gage at present site and datum.

REMARKS.--Records fair. Flow regulated by gates and fish racks at lake outlet. No diversion above station.

AVERAGE DISCHARGE.--32 years (water years 1927-29, 1931-53, 1972-77), 57.1 ft^3/s (1.617 m^3/s), 41,370 acre-ft/yr (51.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 336 ft^3/s (9.52 m^3/s) Jan. 1, 1943, gage height, 2.8 ft (0.85 m), from rating curve extended above 120 ft^3/s (3.40 m^3/s); no flow Aug. 25-27, 1931, Sept. 19, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 148 ft^3/s (4.19 m^3/s) Sept. 28, gage height, 2.27 ft (0.692 m); no flow Sept. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	125	49	40	26	56	59	52	53	27	18	21
2	6.8	112	48	42	27	58	56	59	52	26	18	21
3	6.8	103	46	45	25	63	55	60	52	25	18	22
4	6.8	97	45	45	28	62	52	63	49	23	18	21
5	6.8	92	45	46	28	60	49	62	46	23	18	20
6	7.5	90	45	46	29	59	49	59	45	22	17	19
7	6.8	88	44	46	29	63	48	58	45	22	17	19
8	6.3	85	41	46	30	70	46	55	44	22	17	19
9	7.1	81	41	40	31	78	46	53	42	21	17	18
10	7.5	78	41	35	33	76	45	59	48	21	18	18
11	8.4	75	39	35	33	73	45	60	59	21	20	18
12	11	73	36	36	34	76	45	59	60	21	20	18
13	9.8	70	36	36	33	75	45	56	64	21	21	18
14	11	72	39	36	35	72	45	55	58	20	21	18
15	15	72	39	40	35	67	45	56	45	21	21	18
16	21	70	36	48	37	64	42	58	45	21	20	18
17	30	69	36	46	37	63	42	58	44	21	19	19
18	37	67	33	48	39	62	42	55	41	21	19	11
19	36	66	32	48	39	60	40	53	39	19	19	6.0
20	36	64	33	46	33	59	40	52	39	19	19	73
21	33	54	32	46	27	58	37	52	39	19	19	121
22	33	56	32	28	32	55	36	52	34	19	19	116
23	45	55	32	7.1	35	56	37	58	31	19	18	116
24	59	53	32	6.0	37	58	41	58	30	19	22	130
25	63	52	33	5.7	39	56	50	59	30	19	23	135
26	62	53	36	6.0	41	55	49	62	30	19	21	128
27	54	53	35	6.0	45	59	48	60	29	19	22	121
28	53	52	40	5.0	53	63	48	58	28	18	23	140
29	52	50	39	27	---	62	48	56	28	18	21	138
30	50	49	39	28	---	60	49	56	27	18	21	128
31	103	---	38	29	---	59	---	56	---	18	21	---
TOTAL	896.4	2170	1180	1044.8	950	1957	1379	1769	1276	642	605	1688.0
MEAN	28.9	72.3	38.1	33.7	33.9	63.1	46.0	57.1	42.5	20.7	19.5	56.3
MAX	103	125	49	48	53	78	59	63	64	27	23	140
MIN	6.3	49	32	5.0	25	55	36	52	27	18	17	6.0
AC-FT	1780	4300	2340	2070	1880	3880	2740	3510	2530	1270	1200	3350

CAL YR 1976 TOTAL 23031.5 MEAN 62.9 MAX 125 MIN 2.2 AC-FT 45700
WTR YR 1977 TOTAL 15576.6 MEAN 42.7 MAX 140 MIN 6.0 AC-FT 30900

14313000 LEMOLO LAKE NEAR TOKETTE FALLS, OR

LOCATION.--Lat 43°19'10", long 122°11'20", in SE¼NW¼ sec.11, T.26 S., R.5 E., Douglas County, Hydrologic Unit 17100301, at Lemolo No. 1 diversion dam on North Umpqua River, 0.8 mi (1.3 km) downstream from Lake Creek, 13.0 mi (20.9 km) east of town of Toketee Falls, and at mile 93.01 (149.7 km).

DRAINAGE AREA.--170 mi^2 (440 km^2).

PERIOD OF RECORD.--July 1954 to current year. Prior to October 1960, published as Lemolo Reservoir near Toketee Falls.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Pacific Power & Light Co.).

REMARKS.--Lake is formed by Lemolo No. 1 diversion dam. Storage began July 15, 1954. Usable capacity for normal operation, 12,520 acre-ft (15.4 hm^3) between elevations 4,097.0 ft (1,248.77 m) and 4,148.5 ft (1,264.46 m). Dead storage below 4,097.0 ft (1,248.77 m), 1,040 acre-ft (1.28 hm^3). Water is used for power generation. Figures given herein represent total contents.

COOPERATION.--Gage readings furnished by Pacific Power & Light Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 14,000 acre-ft (17.3 hm^3) Dec. 24, 1964, elevation, 4,149.5 ft (1,264.77 m); minimum observed, 11 acre-ft (13,600 m^3) Mar. 5, 1955, elevation, 4,055.4 ft (1,236.09 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 13,350 acre-ft (16.5 hm^3) Aug. 14-19, elevation, 4,148.0 ft (1,264.31 m); minimum observed, 1,770 acre-ft (2.18 hm^3) Jan. 28, elevation, 4,105.0 ft (1,251.20 m).

MONTHEND ELEVATION AND CONTENTS AT 0900, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	4,137.9	9,520	-
Oct. 31	4,110.3	2,420	-7,100
Nov. 30	4,106.3	1,920	-500
Dec. 31	4,113.7	2,950	+1,030
CAL YR 1976	-	-	-5,440
Jan. 31	4,112.2	2,700	-250
Feb. 28	4,134.2	8,290	+5,590
Mar. 31	4,142.1	11,010	+2,720
Apr. 30	4,142.0	10,970	-40
May 31	4,146.0	15,520	+1,550
June 30	4,145.8	12,440	-80
July 31	4,147.4	13,100	+660
Aug. 31	4,146.9	12,890	-210
Sept.30	4,138.8	9,820	-3,070
WTR YR 1977	-	-	+300

14313501 NORTH UMPQUA RIVER BELOW LEMOLO LAKE, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°19'20", long 122°11'40", in NW¼NW¼ sec.11, T.26 S., R.5 E., Douglas County, Hydrologic Unit 17100301, on right bank 0.4 mi (0.6 km) downstream from Lemolo Lake, 13 mi (21 km) east of town of Toketee Falls, and at mile 92.6 (148.9 km).

DRAINAGE AREA.--170 mi² (440 km²).

PERIOD OF RECORD.--October 1927 to December 1945, March 1946 to current year. Published as "below Lake Creek" prior to October 1952, as "below Lake Creek, near Toketee Falls" October 1952 to September 1953, and as "below Lemolo Reservoir near Toketee Falls" October 1953 to September 1960.

REVISED RECORDS.--WSP 1448: Drainage area. WRD OR-75-1: 1964(M).

GAGE.--Water-stage recorder. Altitude of gage is 4,025 ft (1,227 m), from river-profile map. Prior to July 15, 1954, at site 1 mi (2 km) upstream at datum about 65 ft (19.8 m) higher. July 15, 1954, to Sept. 25, 1955, at site 400 ft (122 m) upstream at datum 14.11 ft (4.301 m) higher.

REMARKS.--Records good. Flow regulated since 1954 by Lemolo Lake (see station 14313000); also slightly regulated by Diamond Lake. All records given herein include flow in Lemolo No. 1 power canal which, beginning July 1955, diverts 0.4 mi (0.6 km) above station for power generation with return flow 4.3 mi (6.9 km) downstream.

COOPERATION.--Records of daily power plant generation furnished by Pacific Power and Light Co.

AVERAGE DISCHARGE.--49 years, 424 ft³/s (12.01 m³/s), 33.87 in/yr (860 mm/yr), 307,200 acre-ft/yr (379 hm³/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 4,600 ft³/s (130 m³/s) Dec. 25, 1964, from rating curve extended above 450 ft³/s (12.7 m³/s) on basis of slope-area measurement of peak flow, gage height, 9.20 ft (2.804 m), from floodmark; minimum, 6.4 ft³/s (0.18 m³/s) July 17, 1954.

Combined flow, maximum discharge, 4,680 ft³/s (133 m³/s) Dec. 25, 1964, from river rating curve extended above 450 ft³/s (12.7 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 9.7 ft³/s (0.27 m³/s) May 13, 1955.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 263 ft³/s (7.45 m³/s) July 19. gage height, 5.55 ft (1.692 m); minimum, 21 ft³/s (0.59 m³/s) July 16-18, Sept. 14.

Combined flow, maximum daily discharge, 549 ft³/s (15.5 m³/s) May 1; minimum daily, 117 ft³/s (3.31 m³/s) May 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	519	429	381	320	202	222	244	549	443	242	291	252
2	518	519	388	301	233	230	344	529	460	294	291	256
3	520	527	363	355	252	228	301	367	537	302	285	251
4	519	526	331	337	263	223	342	461	452	301	261	276
5	516	527	385	337	227	224	357	467	432	299	254	260
6	510	446	387	334	244	226	374	427	449	301	254	257
7	512	445	385	332	231	229	357	454	435	301	264	258
8	510	451	385	478	334	241	354	540	364	380	238	253
9	506	393	388	543	298	303	352	513	369	302	254	269
10	500	331	371	482	260	457	323	348	371	292	304	359
11	495	514	383	360	258	538	355	350	190	299	272	336
12	492	428	385	362	228	465	337	118	189	274	268	443
13	485	409	385	361	225	545	403	121	346	328	267	519
14	485	408	371	367	231	319	127	125	459	330	270	516
15	497	410	348	364	227	337	340	122	541	345	284	364
16	518	404	350	382	232	348	355	123	371	343	283	522
17	517	414	331	365	242	346	356	392	451	386	286	525
18	518	410	329	295	227	337	358	392	333	289	300	523
19	517	416	332	368	228	339	466	390	326	203	301	523
20	451	415	335	350	222	334	544	370	333	154	285	465
21	505	428	335	329	221	333	264	353	238	206	305	363
22	516	387	329	315	223	333	433	359	243	292	305	334
23	517	390	332	314	226	338	350	352	262	265	305	333
24	524	391	333	366	225	265	338	352	271	263	309	323
25	523	389	333	463	238	259	359	354	225	279	303	326
26	521	395	337	463	224	264	387	294	228	294	308	326
27	426	395	334	428	226	266	343	347	229	294	308	332
28	519	397	335	266	223	270	340	343	228	292	308	264
29	518	382	332	136	---	252	463	344	279	291	342	307
30	496	383	336	119	---	252	543	117	275	291	251	403
31	430	---	325	279	---	279	---	367	---	293	309	---
TOTAL	15600	12750	10972	10871	6668	9602	10779	10720	10329	8945	8945	10918
MEAN	503	425	354	351	238	310	359	346	344	289	289	364
MAX	526	527	388	543	334	545	544	549	541	386	309	525
MIN	426	331	325	119	202	222	127	117	189	154	238	251
AC-FT	30940	25310	21760	21560	13230	19050	21380	21260	20490	17740	17740	21660
MEAN†	389	417	371	367	380	356	380	371	361	300	300	312
CFSM†	2.29	2.45	2.18	2.16	2.24	2.09	2.11	2.18	2.02	1.76	1.00	1.84
IN.†	2.63	2.74	2.51	2.55	2.08	2.40	2.35	2.52	2.25	2.03	1.93	2.05
AC-FT†	23,900	24,810	22,790	22,580	16,020	21,770	21,380	22,830	20,480	18,480	17,130	18,580

CAL YR 1976 TOTAL 170,561 MEAN 466 MAX 603 MIN 207 AC-FT 338,300 MEAN† [illegible] CFSM† 2.05 IN.† [illegible] AC-FT† [illegible]
WTR YR 1977 TOTAL 127,108 MEAN 348 MAX 549 MIN 117 AC-FT 252,100 MEAN† [illegible] CFSM† 2.05 IN.† 27.8[illegible] AC-FT† 252,[illegible]

† Adjusted for change in contents in Lemolo Lake.

14314501 CLEARWATER RIVER ABOVE TRAP CREEK, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°14'40", long 122°17'10", in SW¼ sec.1, T.27 S., R.4 E., Douglas County, Hydrologic Unit 17100301, on right bank 900 ft (274 m) downstream from Clearwater No. 1 diversion dam, 0.4 mi (0.6 km) upstream from Trap Creek, 8.7 mi (14.0 km) east of town of Toketee Falls, and at mile 7.8 (12.6 km).

DRAINAGE AREA.--41.6 mi^2 (107.7 km^2).

PERIOD OF RECORD.--October 1927 to December 1945, March 1946 to current year. Monthly discharge only December 1927 to March 1928, published in WSP 1318. Prior to October 1952, published as "above Trap Creek."

REVISED RECORDS.--WSP 1124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,862.84 ft (1,177.394 m) above mean sea level (levels by Pacific Power & Light Co.). Prior to Dec. 1, 1953, at two sites about 0.4 mi (0.6 km) downstream at different datums.

REMARKS.--Records good. All records given herein include flow in Clearwater No. 1 power canal, completed in June 1953, which diverts 900 ft (274 m) above station for generation of power and returns water to Clearwater River 2.5 mi (4.0 km) below station.

COOPERATION.--Records of daily power plant generation furnished by Pacific Power and Light Co.

AVERAGE DISCHARGE.--49 years, 173 ft^3/s (4.889 m^3/s), 56.47 in/yr (1,434 mm/yr), 125,300 acre-ft/yr (154 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 848 ft^3/s (24.0 m^3/s) Dec. 23, 1964, gage height, 7.19 ft (2.192 m); maximum gage height, 7.87 ft (2.399 m) Dec. 23, 1964, log jam; minimum discharge, 0.08 ft^3/s (0.002 m^3/s) Sept. 21, 1977, result of beavers plugging release gate at diversion dam 900 ft (274 m) upstream.

Combined flow, maximum discharge, 1,020 ft^3/s (28.9 m^3/s) Dec. 23, 1964; minimum daily, 91 ft^3/s (2.58 m^3/s) Nov. 4-6, 1931.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 166 ft^3/s (4.70 m^3/s) May 26, gage height, 4.25 ft (1.295 m); minimum, 0.08 ft^3/s (0.002 m^3/s) Sept. 21, result of beavers plugging release gate at diversion dam 900 ft (274 m) upstream.

Combined flow, maximum daily discharge, 207 ft^3/s (5.86 m^3/s) June 3; minimum daily, 126 ft^3/s (3.57 m^3/s) Jan. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	167	166	159	154	152	154	148	164	150	147	135	138
2	165	163	154	154	152	155	148	169	148	147	141	135
3	170	162	162	155	148	147	146	166	207	148	144	135
4	171	162	154	157	146	150	150	169	190	150	136	141
5	163	159	155	154	153	150	149	167	184	136	135	130
6	164	160	158	153	148	148	153	162	182	149	138	132
7	164	159	157	155	153	152	147	161	189	144	138	136
8	163	160	158	155	150	149	164	160	189	141	134	135
9	163	161	153	138	152	147	152	153	167	146	142	131
10	165	162	160	166	150	157	156	181	169	144	139	129
11	161	166	158	150	141	150	152	158	169	140	132	136
12	166	156	155	155	152	146	152	161	172	142	142	135
13	161	161	159	156	154	152	137	171	167	141	134	134
14	160	160	155	159	153	145	135	160	163	140	137	132
15	165	166	154	151	150	149	195	160	162	135	137	134
16	163	158	155	149	155	145	153	162	158	142	138	133
17	161	165	158	159	150	148	157	171	156	142	132	134
18	164	165	154	152	148	144	154	162	155	143	138	134
19	160	160	157	152	148	150	160	165	155	140	139	134
20	163	163	154	153	149	143	167	163	151	148	135	132
21	163	151	157	153	152	150	154	164	146	147	135	133
22	163	164	154	148	149	144	158	171	146	142	135	144
23	157	165	157	151	151	159	154	180	153	140	136	135
24	165	156	153	150	149	148	153	193	156	142	136	145
25	170	159	153	152	148	148	162	154	152	142	143	133
26	169	160	158	154	152	145	161	162	148	139	150	144
27	163	156	157	150	152	148	162	157	148	135	137	128
28	163	157	153	140	151	150	159	155	147	146	138	147
29	159	159	155	126	---	151	160	154	150	135	132	161
30	164	155	154	160	---	147	158	154	147	144	134	142
31	166	---	158	176	---	148	---	152	---	136	132	---
TOTAL	5079	4816	4836	4733	4208	4617	4656	5081	4876	4413	4254	4092
MEAN	164	161	156	153	150	149	155	164	163	142	137	136
MAX	171	166	162	176	155	159	195	193	207	150	150	161
MIN	157	151	153	126	141	143	135	152	146	135	132	128
CFSM	3.94	3.87	3.75	3.68	3.61	3.58	3.73	3.94	3.92	3.41	3.29	3.27
IN.	4.54	4.31	4.32	4.23	3.76	4.13	4.16	4.54	4.36	3.95	3.80	3.66
AC-FT	10080	9550	9590	9390	8350	9160	9240	10080	9670	8750	8440	8120

CAL YR 1976 TOTAL 71163 MEAN 194 MAX 230 MIN 151 CFSM 4.66 IN 63.44 AC-FT 141200
WTR YR 1977 TOTAL 55661 MEAN 152 MAX 207 MIN 126 CFSM 3.66 IN 49.77 AC-FT 110400

14316001 FISH CREEK AT BIG CAMAS RANGER STATION, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°13'50", long 122°26'45", in SE¼ sec.10, T.27 S., R.3 E., Douglas County, Hydrologic Unit 17100301, on right bank 0.2 mi (0.3 km) upstream from Camas Creek, 0.7 mi (1.1 km) east of Big Camas ranger station, 3.2 mi (5.1 km) south of town of Toketee Falls, and at mile 4.7 (7.6 km).

DRAINAGE AREA.--68.8 mi² (178.2 km²).

PERIOD OF RECORD.--October 1947 to current year. Prior to October 1952, published as "at Big Camas ranger station."

REVISED RECORDS.--WSP 1448: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,858.52 ft (871.277 m) above mean sea level (levels by Pacific Power & Light Co.). Prior to July 10, 1951, water-stage recorder and July 10 to Aug. 10, 1951, nonrecording gage, at site 1,000 ft (305 m) upstream at datum 13.72 ft (4.182 m) higher. Aug. 11 to Nov. 3, 1951, nonrecording gage at site 200 ft (61 m) downstream at different datum. Nov. 4, 1951, to Sept. 30, 1956, water-stage recorder at present site at datum 1.92 ft (0.585 m) higher.

REMARKS.--Records good. All records given herein include flow in Fish Creek power canal (diversion began June 18, 1952), which diverts water 2 mi (3 km) above station for power generation at Fish Creek powerplant; diversion discharged to North Umpqua River 600 ft (183 m) downstream from Toketee powerplant.

COOPERATION.--Records of daily powerplant generation furnished by Pacific Power and Light Co.

AVERAGE DISCHARGE.--30 years, 238 ft³/s (6.740 m³/s), 46.98 in/yr (1,193 mm/yr), 172,400 acre-ft/yr (213 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 12,100 ft³/s (343 m³/s) Dec. 22, 1964, gage height, 13.9 ft (4.24 m), from floodmark; minimum, 2.3 ft³/s (0.06 m³/s) Sept. 25, 1957.

Combined flow, maximum discharge, 12,100 ft³/s (343 m³/s) Dec. 22, 1964; minimum daily, 24 ft³/s (0.68 m³/s) Jan. 6, 7, 1977.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 268 ft³/s (7.59 m³/s) May 3, gage height, 4.22 ft (1.286 m); minimum, 4.0 ft³/s (0.11 m³/s) Dec. 24.

Combined flow, maximum discharge, 379 ft³/s (10.7 m³/s) May 26, no peak above base of 900 ft³/s (25.5 m³/s); minimum daily, 24 ft³/s (0.68 m³/s) Jan. 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	62	37	42	36	48	65	183	239	56	42	36
2	57	53	36	42	39	50	59	209	215	59	42	36
3	53	44	39	38	38	46	64	233	196	56	41	35
4	53	50	37	37	31	44	71	193	196	48	42	34
5	48	47	36	30	36	43	93	177	207	59	42	34
6	50	49	34	24	39	46	127	164	210	50	42	33
7	48	45	34	24	37	55	138	152	201	50	37	33
8	45	46	38	28	38	79	187	146	182	53	45	32
9	47	47	41	30	37	87	165	163	154	50	36	31
10	45	35	38	27	38	56	130	218	143	50	35	31
11	45	38	49	35	37	62	111	211	142	48	35	31
12	44	44	39	34	40	51	121	202	124	48	34	31
13	47	44	39	37	39	55	138	194	111	46	35	31
14	40	52	37	43	36	44	126	197	108	48	34	30
15	42	67	36	37	35	48	131	197	99	48	33	31
16	38	55	38	38	37	46	144	200	93	49	33	33
17	47	47	34	40	34	46	143	211	87	47	33	35
18	45	45	35	37	42	45	110	216	82	46	33	37
19	39	48	32	36	36	46	113	206	78	48	32	44
20	50	42	34	39	37	46	108	227	76	45	33	54
21	42	43	32	39	41	47	116	250	76	43	33	40
22	44	42	43	39	49	51	117	253	65	42	32	36
23	42	41	36	37	40	71	127	281	70	40	32	45
24	49	47	36	38	39	60	147	274	64	45	80	95
25	77	39	36	32	36	69	184	252	60	45	53	53
26	63	46	41	31	38	54	157	348	61	43	56	49
27	53	37	41	33	45	64	148	292	59	42	44	44
28	45	31	36	33	78	74	156	254	49	42	40	207
29	46	39	36	35	---	63	155	228	67	41	40	141
30	46	38	38	40	---	56	172	216	58	43	43	89
31	49	---	40	33	---	63	---	222	---	42	39	---
TOTAL	1490	1363	1158	1088	1108	1715	3823	6769	3572	1472	1231	1491
MEAN	48.1	45.4	37.4	35.1	39.6	55.3	127	218	119	47.5	39.7	49.7
MAX	77	67	49	43	78	87	187	348	239	59	80	207
MIN	38	31	32	24	31	43	59	146	49	40	32	30
CFSM	.70	.66	.54	.51	.58	.80	1.85	3.17	1.73	.69	.58	.72
IN.	.81	.74	.63	.59	.60	.93	2.07	3.66	1.93	.80	.67	.81
AC-FT	2960	2700	2300	2160	2200	3400	7580	13430	7090	2920	2440	2960

CAL YR 1976 TOTAL 69907 MEAN 191 MAX 1010 MIN 31 CFSM 2.78 IN 37.80 AC-FT 138700
WTR YR 1977 TOTAL 26280 MEAN 72.0 MAX 348 MIN 24 CFSM 1.05 IN 14.21 AC-FT 52130

14316500 NORTH UMPQUA RIVER ABOVE COPELAND CREEK, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°17'45", long 122°32'10", in NW¼ sec.24, T.26 S., R.2 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, on left bank 0.6 mi (1.0 km) upstream from Copeland Creek, 4.7 mi (7.6 km) west of town of Toketee Falls, and at mile 67.2 (108.1 km).

DRAINAGE AREA.--475 mi^2 (1,230 km^2).

PERIOD OF RECORD.--September 1949 to current year. Monthly discharge only September 1949, published in WSP 1318. Prior to October 1952, published as "above Copeland Creek."

REVISED RECORDS.--WSP 1448: 1953(M), 1954, drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,580 ft (482 m), from river-profile map. Prior to Aug. 1, 1976, on right bank at same datum.

REMARKS.--Records excellent. Considerable fluctuation caused by powerplants upstream; flow slightly regulated by Diamond Lake and by Lemolo Lake (see station 14313000). No diversion above station.

AVERAGE DISCHARGE.--28 years, 1,532 ft^3/s (43.39 m^3/s), 1,110,000 acre-ft/yr (1.37 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,700 ft^3/s (1,150 m^3/s) Dec. 22, 1964, gage height, 19.1 ft (5.82 m), from floodmark, from rating curve extended above 7,200 ft^3/s (204 m^3/s) on basis of slope-area measurement of peak flow; minimum, 380 ft^3/s (10.8 m^3/s) Aug. 23, 1977; minimum daily, 565 ft^3/s (16.0 m^3/s) Sept. 13, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,890 ft^3/s (53.5 m^3/s) May 2, gage height, 6.58 ft (2.006 m); minimum, 380 ft^3/s (10.8 m^3/s) Aug. 23; minimum daily, 585 ft^3/s (16.6 m^3/s) Jan. 30 and Feb. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1030	930	840	738	645	864	966	1380	1210	680	705	665
2	1010	1050	822	816	670	732	996	1600	1290	768	705	645
3	1010	1040	816	792	645	700	984	1500	1490	804	700	625
4	1100	1030	816	762	640	720	1010	1500	1310	780	645	625
5	1030	942	828	792	660	744	1120	1440	1290	792	640	625
6	1070	894	822	798	635	680	1250	1350	1290	780	640	625
7	1000	882	828	828	762	750	1360	1390	1330	756	645	625
8	996	936	864	750	768	870	1530	1360	1250	744	670	630
9	1000	894	936	906	720	1080	1410	1260	1140	744	675	645
10	1000	858	804	978	645	1100	1150	1410	1070	756	660	705
11	1010	960	816	828	715	1040	1100	1500	906	756	665	726
12	1010	948	846	816	645	1130	1090	1090	846	710	715	810
13	996	870	864	936	650	1120	1120	1160	1010	774	650	930
14	948	894	828	876	650	840	930	1060	1060	762	650	930
15	966	930	768	732	650	822	1330	1050	1140	750	645	715
16	954	978	804	774	650	780	1150	1100	1010	768	665	852
17	954	900	756	852	685	786	1160	1350	984	780	705	936
18	1040	912	768	744	705	882	1100	1480	960	645	705	924
19	1010	912	762	756	585	834	1120	1360	930	645	715	918
20	972	906	768	828	650	840	1180	1440	822	655	690	882
21	1010	912	804	774	726	840	1090	1320	888	650	625	738
22	1000	840	732	732	600	900	1130	1380	816	655	675	738
23	1000	858	804	738	660	984	1040	1450	680	645	675	715
24	978	852	792	816	660	918	1140	1470	756	635	822	960
25	1100	858	792	846	635	882	1210	1390	774	726	816	726
26	1070	858	780	912	625	804	1180	1390	786	690	700	732
27	936	852	780	852	620	870	1180	1450	756	690	726	762
28	996	852	768	655	870	972	1150	1380	660	732	720	984
29	1040	852	756	605	---	912	1160	1340	810	700	700	1160
30	990	792	756	585	---	822	1330	1070	774	695	780	1030
31	900	---	768	615	---	852	---	1320	---	660	744	---
TOTAL	31126	27192	24888	24432	18771	27070	34666	41740	30038	22327	21473	23583
MEAN	1004	906	803	788	670	873	1156	1346	1001	720	693	786
MAX	1100	1050	936	978	870	1130	1530	1600	1490	804	822	1160
MIN	900	792	732	585	585	680	930	1050	660	635	625	625
AC-FT	61740	53940	49370	48460	37230	53690	68760	82790	59580	44290	42590	46780

CAL YR 1976 TOTAL 526152 MEAN 1438 MAX 5320 MIN 732 AC-FT 1044000
WTR YR 1977 TOTAL 327306 MEAN 897 MAX 1600 MIN 585 AC-FT 649200

14316700 STEAMBOAT CREEK NEAR GLIDE, OR

LOCATION.--Lat 43°21'00", long 122°43'40", in N½ sec.32, T.25½ S., R.1 E., Douglas County, Hydrologic Unit 17100301, in Umpqua National Forest, on right bank in Canton Creek Forest Service Park, 200 ft (61 m) downstream from Canton Creek, 19 mi (31 km) northeast of Glide, and at mile 0.5 (0.8 km).

DRAINAGE AREA.--227 mi^2 (588 km^2).

PERIOD OF RECORD.--Annual maximum, water year 1956, June 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,128.55 ft (343.982 m) above mean sea level (levels by Bureau of Public Roads). Oct. 7, 1955, to June 13, 1956, nonrecording gage at site 100 ft (30 m) upstream at same datum.

REMARKS.--Records excellent. No regulation or diversion above station.

AVERAGE DISCHARGE.--21 years, 741 ft^3/s (20.99 m^3/s), 44.33 in/yr (1,126 mm/yr), 536,900 acre-ft/yr (662 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,000 ft^3/s (1,440 m^3/s) Dec. 22, 1964, gage height, 25.6 ft (7.80 m), from floodmark, from rating curve extended above 13,000 ft^3/s (368 m^3/s), on basis of slope-area measurement at 17.96 ft (5.474 m); minimum, 30 ft^3/s (0.85 m^3/s) Sept. 15-17, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,250 ft^3/s (63.7 m^3/s) Mar. 8, gage height, 4.95 ft (1.509 m), no peak above base of 8,000 ft^3/s (227 m^3/s); minimum, 31 ft^3/s (0.88 m^3/s) Aug. 17-21, 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	137	56	66	71	788	836	390	440	84	43	59
2	51	143	55	137	67	530	930	680	390	82	43	51
3	56	103	54	191	63	590	728	836	347	82	42	47
4	54	84	54	139	61	545	874	1080	336	82	40	45
5	51	74	52	118	60	540	1110	1090	322	82	39	43
6	50	68	52	90	61	630	1060	958	319	79	39	41
7	50	64	52	85	60	806	1080	776	298	77	43	40
8	48	61	57	76	59	1710	1160	710	264	74	43	39
9	47	59	82	73	59	1610	867	665	233	73	43	37
10	46	57	73	90	59	951	640	830	213	73	39	36
11	46	56	67	84	59	704	540	874	196	68	36	36
12	46	56	64	159	59	800	512	740	184	67	35	35
13	45	55	63	179	59	686	580	620	172	66	35	34
14	45	64	59	216	59	526	526	550	161	64	34	34
15	43	104	57	170	59	427	467	540	152	63	34	34
16	43	143	56	137	59	370	476	710	143	61	33	34
17	42	106	56	122	57	347	432	1360	137	59	32	37
18	42	94	55	118	57	329	378	1320	132	59	31	41
19	42	85	52	112	56	415	340	930	126	61	31	57
20	42	77	50	106	56	615	319	788	122	59	31	77
21	42	73	52	101	74	530	315	692	126	57	32	70
22	42	68	51	95	161	645	322	615	118	55	32	56
23	42	66	52	88	189	854	336	655	110	52	31	57
24	50	63	54	84	186	650	374	670	104	51	61	207
25	218	61	55	79	179	560	423	600	101	50	112	154
26	194	60	70	73	224	476	386	776	97	50	87	148
27	101	57	108	73	390	734	329	806	94	48	88	110
28	77	56	104	71	1360	812	319	670	90	47	64	458
29	68	55	85	68	---	675	326	565	85	46	68	454
30	66	55	76	68	---	585	336	490	84	46	71	204
31	70	---	68	70	---	555	---	445	---	45	73	---
TOTAL	1909	2304	1941	3338	3963	20995	17321	23431	5696	1962	1465	2775
MEAN	61.6	76.8	62.6	108	142	677	577	756	190	63.3	47.3	92.5
MAX	218	143	108	216	1360	1710	1160	1360	440	84	112	458
MIN	42	55	50	66	56	329	315	390	84	45	31	34
CFSM	.27	.34	.28	.48	.63	2.98	2.54	3.33	.84	.28	.21	.41
IN.	.31	.38	.32	.55	.65	3.44	2.84	3.84	.93	.32	.24	.45
AC-FT	3790	4570	3850	6620	7860	41640	34360	46480	11300	3890	2910	5500

CAL YR 1976 TOTAL 207817 MEAN 568 MAX 14700 MIN 42 CFSM 2.50 IN 34.06 AC-FT 412200

WTR YR 1977 TOTAL 87100 MEAN 239 MAX 1710 MIN 31 CFSM 1.05 IN 14.27 AC-FT 172800

14318000 LITTLE RIVER AT PEEL, OR

LOCATION.--Lat 43°15'10", long 123°01'30", in NW¼ sec.2, T.27 S., R.3 W., Douglas County, Hydrologic Unit 17100301, on left bank 0.6 mi (1.0 km) southeast of Peel, 0.9 mi (1.5 km) downstream from Cavitt Creek, and at mile 6.3 (10.1 km).

DRAINAGE AREA.--177 mi² (458 km²).

PERIOD OF RECORD.--August 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 828.33 ft (252.475 m) above mean sea level.

REMARKS.--Records excellent except those for period of no gage-height record, which are fair. No regulation. Small diversions for rural domestic use and irrigation above station.

AVERAGE DISCHARGE.--23 years, 476 ft³/s (13.48 m³/s), 36.52 in/yr (928 mm/yr), 344,900 acre-ft/yr (425 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,100 ft³/s (598 m³/s) Dec. 11, 1956, gage height, 19.63 ft (5.983 m), from rating curve extended above 5,900 ft³/s (167 m³/s) on basis of slope-area measurement at gage height 16.55 ft (5.044 m); minimum, 14 ft³/s (0.40 m³/s) Sept. 2, 9, 10, 28, 29, 1967, Sept. 25-27, 1974, Aug. 18, 19, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 22, 23, 1953, reached a stage of 20.6 ft (6.28 m), from floodmark, discharge, 22,700 ft³/s (643 m³/s), from rating curve extended above 5,900 ft³/s (167 m³/s) on basis of slope-area measurement at gage height 16.55 ft (5.044 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,700 ft³/s (48.1 m³/s) May 17, gage height, 5.54 ft (1.689 m), no peak above base of 6,000 ft³/s (170 m³/s); minimum, 14 ft³/s (0.40 m³/s) Aug. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	43	31	32	39	453	664	280	312	50	22	29
2	30	52	31	47	36	381	669	400	269	47	21	26
3	32	43	30	73	34	597	529	550	237	46	21	24
4	31	38	30	63	32	410	543	650	217	46	19	22
5	29	35	28	63	32	345	602	750	194	45	19	21
6	28	33	28	46	33	368	570	650	177	44	19	21
7	27	31	28	42	33	328	620	550	164	43	19	21
8	27	31	35	35	32	602	640	500	151	41	20	19
9	26	30	73	35	32	789	600	460	139	39	20	19
10	26	29	50	46	32	607	460	550	130	40	18	19
11	26	29	41	49	32	479	380	650	123	38	17	18
12	26	28	40	119	33	529	360	600	117	37	17	18
13	25	29	37	96	33	444	400	492	109	38	16	17
14	24	33	35	85	33	337	360	440	101	36	16	17
15	24	68	33	76	32	265	320	474	94	34	16	18
16	24	87	33	65	32	220	340	997	89	33	16	19
17	24	61	33	60	31	196	300	1540	85	31	15	20
18	23	59	32	57	31	199	260	1120	84	31	15	21
19	23	55	30	56	30	295	240	816	80	32	15	32
20	23	50	28	55	31	430	220	669	79	31	15	41
21	23	45	29	52	45	363	220	557	80	30	16	34
22	23	43	29	50	87	381	220	497	74	28	17	27
23	24	41	30	46	103	488	240	592	70	27	16	27
24	31	39	30	44	123	457	260	648	64	27	41	107
25	82	38	30	42	111	405	280	552	61	26	57	68
26	92	38	38	38	139	332	260	746	60	25	52	68
27	52	35	44	39	199	466	220	721	56	25	47	57
28	41	33	41	37	506	557	220	597	53	24	34	337
29	37	32	37	36	---	510	220	488	51	24	37	341
30	35	32	35	35	---	446	220	405	50	23	35	151
31	34	---	33	36	---	420	---	341	---	23	36	---
TOTAL	1001	1240	1082	1655	1966	13101	11437	19282	3570	1065	744	1659
MEAN	32.3	41.3	34.9	53.4	70.2	423	381	622	119	34.4	24.0	55.3
MAX	92	87	73	119	506	789	669	1540	312	50	57	341
MIN	23	28	28	32	30	196	220	280	50	23	15	17
CFSM	.18	.23	.20	.30	.40	2.39	2.15	3.51	.67	.19	.14	.31
IN.	.21	.26	.23	.35	.41	2.75	2.40	4.05	.75	.22	.16	.35
AC-FT	1990	2460	2150	3280	3900	25990	22690	38250	7080	2110	1480	3290

CAL YR 1976 TOTAL 121669 MEAN 332 MAX 7450 MIN 23 CFSM 1.88 IN 25.57 AC-FT 241300
WTR YR 1977 TOTAL 57802 MEAN 158 MAX 1540 MIN 15 CFSM .89 IN 12.15 AC-FT 114700

NOTE.--No gage-height record Apr. 6 to May 12.

14319500 NORTH UMPQUA RIVER AT WINCHESTER, OR

LOCATION.--Lat 43°16'20", long 123°24'40", in NW¼NE¼ sec.33, T.26 S., R.6 W., Douglas County, Hydrologic Unit 17100301, on left bank 400 ft (122 m) downstream from county bridge, 3.0 mi (4.8 km) west of Winchester, and at mile 1.8 (2.9 km).

DRAINAGE AREA.--1,344 mi² (3,481 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1908 to December 1913, October 1923 to September 1929, August 1954 to current year. Prior to December 1908, monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1448: 1909-12, drainage area. WRD Oreg. 1972: 1965(M).

GAGE.--Water-stage recorder. Datum of gage is 372.97 ft (113.681 m) above mean sea level (Douglas County Road Department bench mark). Oct. 1, 1908, to Dec. 31, 1913, and Oct. 1, 1923, to Sept. 30, 1929, nonrecording gage at site 4.8 mi (7.7 km) upstream at different datums. Aug. 27, 1954, to Aug. 12, 1965, water-stage recorder on right bank at same datum.

REMARKS.--Water-discharge records excellent. Diurnal fluctuation caused by upstream powerplants; slight regulation by Lemolo Lake (see station 14313000) and Diamond Lake. Several small diversions for irrigation above station.

AVERAGE DISCHARGE.--34 years, 3,747 ft³/s (106.1 m³/s), 2,715,000 acre-ft/yr (3.35 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 150,000 ft³/s (4,250 m³/s) Dec. 22, 1964, gage height, 34.2 ft (10.42 m), from floodmark; minimum, 383 ft³/s (10.8 m³/s) Sept. 25, 1960; minimum daily, 578 ft³/s (16.4 m³/s) Sept. 14, 1959.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 29, 1950, reached a stage of 23.2 ft (7.07 m), from floodmark, at site 4.8 mi (7.7 km) upstream at different datum, discharge, 88,000 ft³/s (2,490 m³/s). Flood of Nov. 23, 1953, reached a stage of 28.4 ft (8.66 m), from floodmarks, present site and datum, discharge, 93,300 ft³/s (2,640 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,900 ft³/s (195 m³/s) May 17, gage height, 5.66 ft (1.725 m), no peak above base of 20,000 ft³/s (566 m³/s); minimum, 630 ft³/s (17.8 m³/s) Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1170	1160	966	966	816	4040	3100	2330	2720	991	722	909
2	1170	1400	1010	974	854	2940	4000	3030	2430	886	742	794
3	1170	1480	991	1380	862	3220	3520	3630	2490	941	757	757
4	1170	1360	983	1320	832	3000	3290	4850	2550	1030	772	708
5	1260	1270	983	1210	824	2470	3890	5180	2260	1020	688	702
6	1180	1160	991	1170	824	2470	4120	5130	2190	1000	688	695
7	1200	1090	983	1090	832	2410	4120	4290	2140	991	688	688
8	1140	1110	1010	1080	925	4130	4750	3870	2070	941	702	682
9	1130	1110	1190	966	950	5660	4620	3610	1940	917	728	682
10	1130	1080	1220	1110	901	5110	3610	3590	1800	909	708	695
11	1130	1010	1040	1260	816	3750	3000	4210	1650	917	722	757
12	1140	1130	1030	1280	839	3610	2760	3980	1470	909	695	786
13	1140	1130	1060	1430	824	3720	2810	3170	1410	870	735	862
14	1120	1050	1110	1470	824	3020	2820	2920	1520	925	702	1010
15	1070	1160	1030	1400	824	2330	2580	2760	1550	901	682	1010
16	1080	1420	950	1210	816	2100	2730	4000	1590	893	669	801
17	1080	1380	983	1170	809	1910	2500	6130	1410	893	669	917
18	1080	1220	974	1200	870	1900	2380	6290	1410	909	735	1050
19	1170	1190	941	1090	901	2070	2160	5180	1360	772	735	1090
20	1150	1160	933	1080	757	2680	2160	4190	1320	757	750	1140
21	1090	1150	941	1130	832	2620	2120	3790	1210	764	722	1110
22	1140	1140	966	1070	1100	2530	2040	3410	1270	750	675	925
23	1120	1050	893	1030	1220	3150	2070	3570	1130	750	682	886
24	1150	1060	974	1010	1380	3270	2020	3810	1010	735	809	1030
25	1260	1050	966	1070	1300	2870	2200	3610	1060	715	1160	1520
26	1780	1050	983	1090	1290	2580	2310	3680	1070	786	1100	1200
27	1460	1030	1040	1140	1540	2530	2160	4290	1040	794	966	1140
28	1180	1030	1040	1070	2960	3810	2020	3850	1000	764	925	1310
29	1220	1030	1030	878	---	3450	2020	3390	878	809	901	3130
30	1240	1030	983	794	---	3150	2090	3030	991	772	893	2020
31	1170	---	958	735	---	2750	---	2530	---	772	958	---
TOTAL	36690	34690	31152	34873	28522	95250	85970	121300	47939	26783	24080	31006
MEAN	1184	1156	1005	1125	1019	3073	2866	3913	1598	864	777	1034
MAX	1780	1480	1220	1470	2960	5660	4750	6290	2720	1030	1160	3130
MIN	1070	1010	893	735	757	1900	2020	2330	878	715	669	682
CFSM	.88	.86	.75	.84	.76	2.29	2.13	2.91	1.19	.64	.58	.77
IN.	1.02	.96	.86	.97	.79	2.64	2.38	3.36	1.33	.74	.67	.86
AC-FT	72770	68810	61790	69170	56570	188900	170500	240600	95090	53120	47760	61500

CAL YR 1976 TOTAL 1204852 MEAN 3292 MAX 50600 MIN 893 CFSM 2.45 IN 33.35 AC-FT 2390000
WTR YR 1977 TOTAL 598255 MEAN 1639 MAX 6290 MIN 669 CFSM 1.22 IN 16.56 AC-FT 1187000

14319500 NORTH UMPQUA RIVER AT WINCHESTER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-69, 1971 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: January 1971 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26.5°C Aug. 10, 1972; minimum, 0.0°C Jan. 6, 1971, Dec. 8-16, 1972, Jan. 6, 7, 1974, Jan. 8-10, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 25.5°C Aug. 3, 8, 11, 12, 16; minimum, 0.0°C Jan. 8-10.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.5	14.0	10.0	9.0	2.5	2.0	4.0	4.0	4.5	3.0	6.0	5.5
2	15.5	15.0	10.0	9.5	2.5	2.5	4.5	3.5	5.0	4.0	5.5	5.0
3	15.0	14.0	11.0	10.0	3.0	2.5	4.0	3.5	5.0	4.5	6.0	5.0
4	14.0	13.0	11.5	10.5	3.0	2.5	4.5	3.5	5.0	4.0	6.5	5.5
5	15.0	12.0	10.5	10.0	3.0	3.0	4.0	3.0	4.5	3.5	7.0	6.0
6	13.5	12.0	10.0	9.5	3.5	3.0	2.5	1.5	5.0	4.0	6.5	6.5
7	14.0	12.0	10.0	9.0	4.0	3.5	2.0	1.0	5.0	4.0	6.5	6.0
8	13.5	12.5	10.0	9.0	4.0	3.5	1.0	0.0	6.0	4.5	7.0	6.5
9	13.0	12.5	9.5	9.0	4.0	4.0	0.5	0.0	6.0	5.0	6.5	6.0
10	13.5	12.0	9.0	8.5	4.5	4.0	1.0	0.0	7.0	5.5	6.5	5.0
11	14.0	13.0	9.0	8.5	4.5	4.0	2.0	1.0	7.5	6.0	6.5	5.5
12	13.5	12.5	9.0	8.5	4.0	3.5	3.0	2.0	8.0	6.5	6.5	6.0
13	13.5	12.0	9.0	8.5	4.0	3.5	4.0	3.5	8.5	7.0	6.5	5.5
14	13.0	11.5	8.5	8.0	4.0	3.5	4.0	3.5	9.0	8.0	6.5	5.0
15	12.5	11.0	8.5	8.0	4.0	3.5	4.0	3.5	9.0	7.5	6.0	5.5
16	11.5	10.5	9.5	8.5	4.0	3.5	4.0	3.0	8.5	7.5	6.5	5.5
17	11.0	10.0	10.0	9.5	4.0	3.5	4.0	3.0	8.5	7.0	7.0	6.5
18	10.5	9.0	10.5	10.0	4.0	3.5	4.0	3.0	8.5	7.0	7.0	6.5
19	10.0	9.0	10.5	9.5	4.0	3.0	4.0	3.5	8.5	7.0	7.5	6.5
20	10.0	8.5	9.5	8.5	3.0	2.0	4.5	3.5	8.0	7.0	8.0	7.0
21	9.5	8.5	8.5	7.5	2.0	1.5	4.5	4.0	7.5	6.5	8.5	7.0
22	9.0	8.5	7.5	7.5	1.5	1.5	5.0	4.5	7.0	6.5	9.0	7.5
23	9.0	8.0	7.5	7.0	2.5	1.5	4.5	4.5	6.5	6.0	9.0	8.0
24	8.5	8.0	7.5	7.0	3.0	2.0	4.5	4.0	6.0	5.5	8.0	7.0
25	9.0	8.5	7.0	6.5	3.0	2.5	4.5	3.5	6.0	5.5	8.0	7.0
26	9.0	8.0	6.5	5.0	3.5	3.0	3.5	2.5	6.5	5.5	8.5	7.5
27	9.5	8.5	5.0	4.0	4.0	3.5	3.0	2.0	7.0	6.0	8.5	8.0
28	8.5	8.0	4.0	3.0	4.5	4.0	2.5	1.5	7.0	6.0	8.0	6.5
29	8.5	8.0	3.0	2.0	4.0	4.0	2.5	1.5	---	---	7.0	5.5
30	9.0	8.0	3.0	2.0	4.0	4.0	2.5	1.5	---	---	7.5	6.0
31	9.5	8.5	---	---	4.0	4.0	3.5	2.0	---	---	7.0	6.5
MONTH	15.5	8.0	11.5	2.0	4.5	1.5	5.0	0.0	9.0	3.0	9.0	5.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	6.5	13.5	11.5	15.5	14.5	23.0	21.0	25.0	22.0	20.0	17.5
2	8.5	6.5	12.5	11.5	15.5	14.0	22.5	20.5	24.5	22.5	19.5	18.0
3	9.0	7.0	12.0	10.5	15.0	13.5	20.5	19.0	25.5	22.0	20.5	18.5
4	10.0	8.0	10.5	9.0	14.5	13.0	19.5	18.5	25.0	22.0	21.0	19.0
5	10.5	9.0	9.0	8.0	17.5	14.5	19.0	17.5	24.5	21.5	20.0	19.0
6	11.0	8.5	9.5	7.5	19.5	18.0	20.0	17.0	25.0	21.5	20.5	18.0
7	11.0	9.0	9.5	8.5	19.5	18.5	21.0	18.0	25.0	22.0	20.5	18.0
8	10.5	9.5	11.0	8.0	19.0	17.5	22.0	18.5	25.5	22.0	20.0	18.0
9	9.5	8.0	12.5	9.5	18.5	16.5	20.5	19.0	25.0	22.0	20.0	17.5
10	8.5	7.0	12.0	10.0	18.5	17.0	21.0	18.0	25.0	22.0	20.0	17.5
11	10.0	8.0	11.0	9.0	17.0	16.0	22.5	19.0	25.5	22.5	19.5	17.5
12	11.0	9.0	11.0	9.0	17.5	15.0	21.0	19.5	25.5	22.5	19.5	17.0
13	11.0	10.5	11.5	10.0	19.5	16.0	21.5	18.5	24.5	22.5	19.5	17.5
14	11.0	9.0	12.0	11.0	20.5	17.5	22.0	19.0	24.0	18.0	18.0	16.5
15	11.0	10.0	12.0	11.5	20.5	18.5	23.0	20.5	24.5	21.5	16.5	14.5
16	11.0	10.0	11.0	9.5	20.5	18.0	23.5	21.0	25.5	22.0	15.0	14.0
17	11.0	9.5	9.5	8.5	20.0	18.5	23.5	21.0	25.0	23.0	15.0	14.0
18	10.5	9.5	10.0	8.5	19.5	17.5	22.0	21.0	24.0	22.5	14.5	14.0
19	10.5	9.0	11.5	8.5	19.5	17.5	23.0	20.0	23.5	21.5	14.5	13.5
20	10.5	9.5	13.5	10.5	18.5	17.5	23.5	20.5	22.0	20.5	14.0	13.5
21	11.0	10.0	14.0	12.0	20.5	19.5	24.0	20.5	21.5	20.0	14.5	13.0
22	11.5	10.5	13.5	11.5	21.5	19.0	24.5	21.5	22.0	19.5	---	---
23	11.5	11.0	11.5	10.5	22.5	19.0	24.5	21.5	21.5	19.5	---	---
24	12.5	11.0	12.5	10.0	23.5	20.0	25.0	22.0	20.5	19.5	---	---
25	11.5	11.0	12.5	11.0	23.0	21.0	23.5	21.5	19.0	18.0	---	---
26	12.5	10.5	12.5	10.5	23.5	20.5	23.5	20.5	18.5	17.0	---	---
27	13.0	11.5	11.5	10.0	23.5	20.5	23.5	21.0	18.5	17.5	---	---
28	13.0	12.0	12.0	9.5	23.5	21.0	23.5	21.0	19.0	17.5	---	---
29	13.5	12.0	13.5	10.5	23.5	21.0	23.5	20.5	19.5	17.5	---	---
30	13.5	12.5	14.0	12.0	22.5	21.0	24.5	21.0	19.5	18.5	---	---
31	---	---	15.0	13.5	---	---	24.5	21.5	19.5	18.5	---	---
MONTH	13.5	6.5	15.0	7.5	23.5	13.0	25.0	17.0	25.5	17.0	21.0	13.0

14319900 CALAPOOYA CREEK AT NONPAREIL, OR

LOCATION.--Lat 43°25'04", long 123°09'13", in SW¼SE¼ sec.3, T.25 S., R.4 W., Douglas County, Hydrologic Unit 17100303, on left bank 0.3 mi (0.5 km) upstream from county road bridge, 0.9 mi (1.4 km) northeast of Nonpareil, and at mile 26.7 (43.0 km).

DRAINAGE AREA.--89.6 mi^2 (232.1 km^2).

PERIOD OF RECORD.--July 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 699.22 ft (213.122 m) above mean sea level (Douglas County Survey bench mark).

REMARKS.--Records good. No regulation. Only minor diversions by pumping for irrigation above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 580 ft^3/s (16.4 m^3/s) Mar. 9, 1977, gage height, 4.24 ft (1.292 m); minimum, 5.3 ft^3/s (0.15 m^3/s) Aug. 17-19, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 580 ft^3/s (16.4 m^3/s) Mar. 9, gage height, 4.24 ft (1.292 m), no peak above base of 2,700 ft^3/s (76.5 m^3/s); minimum, 5.3 ft^3/s (0.15 m^3/s) Aug. 17-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	56	21	25	23	344	255	60	127	26	11	15
2	15	56	20	33	23	298	249	112	118	25	10	14
3	18	43	20	65	23	421	217	186	108	26	9.2	12
4	17	36	20	63	22	311	197	222	104	26	9.2	11
5	15	32	19	58	22	240	192	249	95	26	8.5	11
6	15	29	19	48	22	205	186	264	87	26	8.5	11
7	14	26	19	40	21	211	181	231	80	25	9.2	11
8	13	23	23	38	21	279	225	228	74	22	9.2	9.2
9	13	22	75	36	20	527	203	178	69	22	9.2	8.5
10	13	22	49	34	20	436	168	158	67	22	7.9	8.5
11	13	21	40	32	19	324	148	186	65	22	6.8	8.5
12	13	21	36	54	19	334	133	165	63	20	6.1	8.5
13	13	20	32	50	19	311	136	145	61	21	6.1	7.9
14	13	27	29	48	19	252	133	133	57	20	5.5	7.9
15	13	40	27	46	19	205	122	148	52	19	6.1	8.5
16	13	53	25	42	19	171	112	354	50	18	6.8	10
17	13	41	25	40	18	148	104	548	47	17	6.1	12
18	13	40	23	36	17	145	97	480	47	16	5.3	13
19	14	37	22	34	17	163	89	351	47	17	5.3	26
20	15	34	21	32	17	186	85	268	47	16	5.8	30
21	15	32	19	30	27	173	81	216	49	15	6.8	22
22	16	30	19	30	63	165	77	182	44	14	9.2	17
23	16	27	20	28	79	189	73	193	40	14	10	17
24	21	26	21	26	104	220	69	196	36	14	39	59
25	75	26	21	24	87	228	67	173	34	12	33	49
26	60	25	25	24	101	197	67	210	34	13	33	54
27	37	22	32	23	124	234	62	213	31	14	25	44
28	29	22	28	23	327	282	58	196	30	13	17	135
29	26	21	27	23	---	311	58	171	27	13	17	127
30	25	21	27	22	---	285	58	150	26	11	19	82
31	22	---	26	22	---	249	---	132	---	11	19	---
TOTAL	623	931	830	1129	1312	8044	3902	6698	1816	576	379.8	849.5
MEAN	20.1	31.0	26.8	36.4	46.9	259	130	216	60.5	18.6	12.3	28.3
MAX	75	56	75	65	327	527	255	548	127	26	39	135
MIN	13	20	19	22	17	145	58	60	26	11	5.3	7.9
CFSM	.22	.35	.30	.41	.52	2.89	1.45	2.41	.68	.21	.14	.32
IN.	.26	.39	.34	.47	.54	3.34	1.62	2.78	.75	.24	.16	.35
AC-FT	1240	1850	1650	2240	2600	15960	7740	13290	3600	1140	753	1680

WTR YR 1977 TOTAL 27090.3 MEAN 74.2 MAX 548 MIN 5.3 CFSM .83 IN 11.25 AC-FT 53730

14321000 UMPQUA RIVER NEAR ELKTON, OR
(National stream-quality accounting network station)

LOCATION.--Lat 43°35'10", long 123°33'15", in NW¼ sec.8, T.23 S., R.7 W., Douglas County, Hydrologic Unit 17100303, on left bank 3.5 mi (5.6 km) south of Elkton, 8.3 mi (13.4 km) upstream from Elk Creek, and at mile 56.9 (91.6 km).

DRAINAGE AREA.--3,683 mi^2 (9,539 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1905 to current year.

REVISED RECORDS.--WSP 1184: 1927(M), 1938(M), 1943(M), 1946(M). WSP 1448: 1911-13, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 90.42 ft (27.560 m) above mean sea level. Prior to June 29, 1972, at site 2,400 ft (732 m) downstream at same datum. See WSP 1931 or 2135 for history of changes prior to June 29, 1972.

REMARKS.--Water-discharge records excellent. Regulation by powerplants on North Umpqua River ordinarily does not affect discharge at this station. Diversions for irrigation above station.

AVERAGE DISCHARGE.--72 years, 7,510 ft^3/s (212.7 m^3/s), 27.69 in/yr (703 mm/yr), 5,441,000 acre-ft/yr (6.71 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 265,000 ft^3/s (7,500 m^3/s) Dec. 23, 1964, gage height, 51.95 ft (15.834 m), from floodmarks; minimum observed, 640 ft^3/s (18.1 m^3/s) July 18, 1926.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least December 1861, that of Dec. 23, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,100 ft^3/s (371 m^3/s) Mar. 10, gage height, 9.22 ft (2.810 m), no peak above base of 52,000 ft^3/s (1,470 m^3/s); minimum, 754 ft^3/s (21.4 m^3/s) Aug. 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1320	1450	1240	1230	1080	6390	4630	2760	3960	1120	884	1050
2	1320	1420	1170	1230	1080	6970	5300	3060	3860	1160	875	1060
3	1310	1600	1180	1230	1130	5950	5950	4430	3530	1100	840	987
4	1320	1670	1200	1550	1150	6960	5240	5690	3580	1080	857	940
5	1350	1610	1180	1660	1130	5850	5060	7240	3400	1140	875	903
6	1370	1510	1180	1630	1110	4790	5710	8310	3120	1170	840	875
7	1320	1390	1180	1560	1090	4560	5840	7860	2980	1110	813	866
8	1320	1310	1210	1460	1090	5020	6000	6740	2880	1110	813	849
9	1280	1280	1250	1380	1110	9130	6850	5950	2690	1090	813	849
10	1270	1300	1370	1280	1090	12400	6190	5370	2520	1060	813	840
11	1250	1280	1520	1320	1180	9430	5010	5600	2340	1040	813	849
12	1260	1230	1400	1500	1110	7260	4280	6210	2150	1040	813	866
13	1270	1280	1340	1630	1090	7330	3950	5540	1980	1050	804	930
14	1260	1340	1310	1860	1110	6590	4050	4840	1900	1030	804	968
15	1240	1300	1310	1960	1070	5370	3900	4350	1930	977	831	1130
16	1220	1370	1300	1820	1070	4360	3720	4380	1930	968	796	1160
17	1210	1610	1220	1600	1070	3800	3670	6740	1930	958	787	1110
18	1210	1670	1200	1520	1070	3380	3440	9880	1750	949	770	1050
19	1180	1570	1200	1510	1070	3280	3250	8970	1710	949	787	1340
20	1250	1460	1180	1400	1090	3490	2960	7100	1660	930	813	1350
21	1280	1400	1160	1380	1090	4240	2940	6160	1620	884	822	1380
22	240	1370	1150	1390	1150	4100	2810	5410	1520	875	822	1420
23	1240	1350	1160	1370	1470	4080	2730	5110	1510	875	787	1290
24	1260	1280	1150	1310	2280	5020	2760	5600	1430	875	822	1310
25	1320	1270	1160	1290	2630	5130	2690	6310	1300	875	903	1300
26	1400	1260	1200	1300	2490	4760	2910	5930	1280	831	1090	1800
27	1900	1250	1230	1310	2300	4290	2980	6270	1300	831	1180	1500
28	1660	1250	1230	1360	2810	4740	2840	6440	1280	849	1100	1610
29	1500	1240	1270	1310	---	5890	2620	5720	1240	875	1140	1890
30	1440	1240	1280	1190	---	5580	2630	5060	1160	894	1080	4670
31	1440	---	1250	1100	---	5110	---	4400	---	884	1060	---
TOTAL	41210	41560	38380	44640	38210	175250	122910	183430	65440	30579	27247	38142
MEAN	1329	1385	1238	1440	1365	5653	4097	5917	2181	986	879	1271
MAX	1900	1670	1520	1960	2810	12400	6850	9880	3960	1170	1180	4670
MIN	1180	1230	1150	1100	1070	3280	2620	2760	1160	831	770	840
CFSM	.36	.38	.34	.39	.37	1.54	1.11	1.61	.59	.27	.24	.35
IN.	.42	.42	.39	.45	.39	1.77	1.24	1.85	.66	.31	.28	.39
AC-FT	81740	82430	76130	88540	75790	347600	243800	363800	129800	60650	54040	75650

CAL YR 1976 TOTAL 2098000 MEAN 5732 MAX 102000 MIN 1150 CFSM 1.56 IN 21.19 AC-FT 4161000
WTR YR 1977 TOTAL 846998 MEAN 2321 MAX 12400 MIN 770 CFSM .63 IN 8.56 AC-FT 1680000

14321000 UMPQUA RIVER NEAR ELKTON, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: April 1971 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 30.0°C July 14, 1971; minimum, 0.0°C Jan. 7, 8, 11, 12, and probably Jan. 9, 10, 1974.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.5°C Aug. 3, 12; minimum, 2.0°C Jan. 9, 10.

WATER QUALITY DATA. WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	TEMPER-ATURE (DEG C)	PH (UNITS)	DIS-SOLVED OXYGEN (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	FECAL COLI-FORM .7UM-MF (COL./ 100 ML)	FECAL STREP-TOCOCCI KF AGAR (COL. PER 100 ML)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)
OCT 19...	1200	1140	13.0	7.1	10.4	76	83	83	19	6.8	2.4	5.5
NOV 16...	1030	1330	11.5	7.1	10.0	78	300	85	17	8.1	2.9	5.5
DEC 14...	1100	1210	5.0	7.2	13.6	92	82	810	21	7.9	2.8	5.9
JAN 10...	1030	1250	2.0	7.5	11.1	102	81	810	18	9.1	3.5	6.0
FEB 23...	1030	1400	9.0	7.5	11.4	95	34	39	18	8.7	3.1	6.2
MAR 15...	1000	5390	7.5	7.0	11.5	79	58	27	15	7.1	3.0	4.3
APR 19...	0915	3310	12.5	7.0	10.6	66	<1	24	15	6.6	2.1	3.9
MAY 17...	0900	6250	13.5	7.5	--	67	24	23	16	7.1	2.4	3.7
JUN 21...	1000	1670	20.0	7.8	9.0	70	82	37	13	7.0	2.6	4.8
JUL 28...	1630	930	25.5	8.9	11.8	73	85	86	17	5.0	2.4	5.2
AUG 23...	0945	761	23.0	7.5	9.5	74	82	2200	16	5.1	2.5	4.6
SEP 19...	1545	1420	18.0	8.5	9.4	82	39	240	20	7.0	2.5	5.4

DATE	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)
OCT 19...	33	0	5.1	3.0	.1	.01	.28	.29	.06	27	0
NOV 16...	45	0	6.0	3.9	.1	.01	.05	.06	.07	32	0
DEC 14...	35	0	4.8	4.8	.1	.15	.21	.36	.08	31	3
JAN 10...	50	--	5.1	6.3	.1	.01	.05	.06	.07	37	0
FEB 23...	45	0	1.9	5.3	.1	.01	.11	.12	.08	35	0
MAR 15...	35	0	5.1	3.8	.1	.09	.07	.16	.06	30	1
APR 19...	33	0	3.3	2.8	.0	.03	.01	.04	.04	25	0
MAY 17...	34	0	3.0	2.4	.0	.01	.34	.35	.05	28	0
JUN 21...	35	0	3.1	2.7	.1	.01	.23	.24	2.1	28	0
JUL 28...	34	0	.5	4.0	.1	.01	.10	.11	.03	22	0
AUG 23...	35	0	.1	2.8	.1	.02	.22	.24	.06	23	0
SEP 19...	36	0	2.0	3.6	.1	.02	--	--	.04	28	0

B: RESULTS BASED ON NON-IDEAL COLONY COUNT

14321000 UMPQUA RIVER NEAR ELKTON, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	SODIUM ADSORPTION RATIO	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	TURBIDITY (JTU)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	ALKALINITY AS CACO3 (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT 19...	.5	73	59	225	.10	1	6	18	42	27	--
NOV 16...	.4	57	67	205	.08	2	3	11	60	37	--
DEC 14...	.5	81	66	265	.11	2	3	9.8	65	29	--
JAN 10...	.4	68	74	229	.09	4	2	6.7	80	41	1.2
FEB 23...	.5	61	66	231	.08	4	3	11	85	37	--
MAR 15...	.3	56	56	815	.08	15	12	175	87	29	--
APR 19...	.3	53	51	474	.07	3	5	45	72	27	1.1
MAY 17...	.3	59	52	996	.08	10	14	236	67	28	--
JUN 21...	.4	46	51	207	.06	1	4	18	63	29	--
JUL 28...	.5	48	52	121	.07	2	2	5.0	62	28	1.8
AUG 23...	.4	54	50	111	.07	2	4	8.2	60	29	--
SEP 19...	.4	51	59	196	.07	2	4	15	76	30	--

DATE	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)
OCT 19...	110	10	10	0	1	1	<10	0	0	0	<50
JAN 10...	200	30	10	0	1	1	<10	1	0	0	<50
APR 19...	270	40	20	10	1	0	<10	1	0	0	<50
JUL 28...	170	110	10	8	1	0	<10	3	0	0	<50

DATE	DISSOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)
OCT 19...	0	<10	1	<100	1	10	0	0	0	.0	.0
JAN 10...	0	20	2	<100	2	20	10	0	0	.0	.0
APR 19...	0	10	2	<100	0	240	0	0	0	.0	.0
JUL 28...	1	20	2	<100	44	8	4	0	0	.0	.0

14321000 UMPQUA RIVER NEAR ELKTON, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE TIME	OCT 19,76 1200	NOV 16,76 1030	DEC 14,76 1100	JAN 10,77 1030	FEB 23,77 1030
TOTAL CELLS/ML	1300	110	51	220	780
DIVERSITY: DIVISION	0.3	0.4	0.0	0.4	0.2
.CLASS	0.3	0.4	0.0	0.4	0.2
..ORDER	0.3	1.2	0.0	1.1	1.0
...FAMILY	0.3	2.6	2.2	2.8	2.4
....GENUS	0.0	2.7	2.4	2.8	2.5

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	80	6	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	11	5	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	8	7	--	-	--	-	--	-
..TETRASPORALES										
...PALMELLACEAE										
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	--	-
..ZYGNEMATALES										
...ZYGNEMATACEAE										
....MOUGEOTIA	--	-	--	-	--	-	--	-	29	4
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE	1200#	94	--	-	--	-	--	-	--	-
....CYCLOTELLA	--	-	--	-	--	-	3	1	170#	21
....MELOSIRA	--	-	--	-	--	-	39#	18	14	2
....STEPHANODISCUS	--	-	35#	31	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	3	2	3	6	6	3	22	3
....COCCONEIS	*	0	3	2	--	-	--	-	7	1
....RHOICOSPHENIA	--	-	3	2	3	6	--	-	22	3
...CYMBELLACEAE										
....AMPHORA	--	-	--	-	--	-	--	-	--	-
....CYMBELLA	--	-	--	-	3	6	--	-	14	2
....EPITHEMIA	*	0	3	2	3	6	6	3	--	-
...DIATOMACEAE										
....DIATOMA	*	0	19#	17	14#	28	39#	18	22	3
...EUNOTIACEAE										
....EUNOTIA	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	--	-	--	-	--	-
....FRAGILARIA	--	-	5	5	--	-	68#	31	--	-
....HANNAEA	--	-	--	-	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	--	-	--	-	65	8
...GOMPHONEMATACEAE										
....GOMPHONEMA	*	0	3	2	3	6	11	5	22	3
...NAVICULACEAE										
....NAVICULA	--	-	3	2	3	6	8	4	43	6
....NEIDIUM	--	-	--	-	--	-	--	-	--	-
....PINNULARIA	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	--	-	30#	26	20#	39	23	10	350#	45
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROCCOCCALES										
...CHROCCOCCAEAE										
....ANACYSTIS	--	-	--	-	--	-	--	-	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-
...RIVULARIACEAE										
....RAPHIDIOPSIS	--	-	--	-	--	-	3	1	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...PERIDINIACEAE										
....PERIDINIUM	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

14321000 UMPQUA RIVER NEAR ELKTON, OR—Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	MAR 15,77	MAY 17,77	JUN 21,77	AUG 23,77	SEP 19,77
TIME	1000	0900	1000	0945	1545
TOTAL CELLS/ML	1700	12000	490	2600	240
DIVERSITY: DIVISION	0.5	1.1	1.0	0.9	1.6
.CLASS	0.5	1.1	1.0	0.9	1.6
..ORDER	1.3	1.1	1.6	1.6	1.0
...FAMILY	3.0	1.9	2.2	2.3	2.6
....GENUS	3.6	2.2	2.6	2.3	2.7

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	12	1	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	13	3	610#	23	--	-
....KIRCHNERIELLA	--	-	--	-	7	1	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	920#	35	--	-
....SCENEDESMUS	48	3	--	-	13	3	--	-	46#	20
..TETRASPORALES										
...PALMELLACEAE										
....SPHAEROCYSTIS	--	-	--	-	--	-	360	14	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	*	0	--	-	--	-	17	7
..ZYGNEMATALES										
...ZYGNEMATACEAE										
....MOUGEOTIA	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE	--	-	--	-	--	-	--	-	--	-
....CYCLOTELLA	340#	20	--	-	250#	52	--	-	--	-
....MELOSIRA	85	5	--	-	16	3	180	7	--	-
....STEPHANODISCUS	--	-	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	130	8	110	1	33	7	--	-	12	5
....COCCONEIS	60	4	610	5	16	3	--	-	12	5
....RHOICOSPHENIA	73	4	500	4	7	1	--	-	--	-
...CYMBELLACEAE										
....AMPHORA	12	1	--	-	--	-	--	-	--	-
....CYMBELLA	60	4	*	0	--	-	--	-	--	-
....EPITHEMIA	36	2	72	1	3	1	*	0	6	2
...DIATOMACEAE										
....DIATOMA	73	4	500	4	13	3	--	-	--	-
...EUNOTIACEAE										
....EUNOTIA	--	-	--	-	3	1	--	-	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	140	1	--	-	--	-	--	-
....FRAGILARIA	85	5	2900#	25	16	3	--	-	--	-
....HANNAEA	--	-	*	0	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	--	-	40	2	6	2
...GOMPHONEMATACEAE										
....GOMPHONEMA	97	6	72	1	7	1	--	-	29	12
...NAVICULACEAE										
....NAVICULA	130	8	320	3	--	-	--	-	6	2
....NEIDIUM	12	1	--	-	--	-	--	-	--	-
....PINNULARIA	12	1	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	330#	20	290	2	13	3	510#	19	17	7
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROCCOCCALES										
...CHROCCOCCAEAE										
....ANACYSTIS	--	-	--	-	78#	16	--	-	87#	37
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	73	4	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	6200#	52	--	-	--	-	--	-
...RIVULARIACEAE										
....RAPHIDIOPSIS	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	*	0	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...PERIDINIACEAE										
....PERIDINIUM	--	-	*	0	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

14321000 UMPQUA RIVER NEAR ELKTON, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	LENGTH OF EXPO-SURE (DAYS)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	CHLOR-A PERI-PHYTON CHROMO-SPECT-METRIC (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-SPECT-METRIC (MG/M2)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)
OCT						
19...	28	1394	.662	.281	--	--
JAN						
10...	27	504	1.07	1.05	--	--
MAY						
17...	28	4931	--	--	.945	.008

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	18.0	11.5	11.0	5.0	4.5	5.0	5.0	5.5	5.0	8.5	8.0
2	18.5	17.5	11.5	11.0	4.5	4.5	5.5	5.0	5.5	5.0	8.0	7.5
3	17.5	17.0	12.0	11.5	4.5	4.5	5.5	5.0	5.5	5.5	8.0	7.5
4	17.0	15.5	12.5	12.0	4.5	4.0	5.5	5.0	6.0	5.5	8.0	7.0
5	16.0	15.0	12.0	12.0	4.0	4.0	5.5	4.5	6.5	5.5	8.5	7.5
6	16.5	15.0	12.0	11.5	4.5	4.0	4.5	3.5	7.0	6.5	8.5	8.5
7	17.0	15.5	12.0	11.5	4.5	4.0	3.5	3.0	7.5	7.0	9.0	8.5
8	17.0	16.0	12.5	12.0	4.5	4.0	3.0	2.5	7.5	7.0	8.5	8.0
9	16.5	15.5	12.5	12.0	5.0	4.5	2.5	2.0	8.0	7.5	8.0	8.0
10	16.0	15.5	12.5	12.0	5.0	4.5	2.5	2.0	8.0	7.5	8.0	7.5
11	16.0	15.5	12.0	11.5	5.5	5.0	3.0	2.5	8.5	8.0	8.0	7.0
12	16.0	15.0	12.0	11.5	5.0	5.0	3.5	3.0	9.5	8.5	8.0	8.0
13	16.0	15.0	11.5	11.0	5.0	5.0	4.0	3.5	10.0	9.5	8.5	7.5
14	15.5	14.5	11.5	11.0	5.5	5.0	4.0	3.5	10.5	9.5	8.0	7.5
15	15.5	14.5	11.5	11.0	5.5	5.5	4.5	4.0	10.5	10.0	8.0	7.5
16	15.0	14.0	12.0	11.5	5.5	5.5	5.0	4.5	11.0	10.0	8.0	7.0
17	14.5	13.5	12.0	11.5	5.5	5.5	5.5	5.0	11.5	11.0	8.5	7.5
18	14.0	12.5	12.5	12.0	6.0	5.5	5.5	5.0	11.5	11.0	8.5	8.0
19	13.5	12.0	12.0	11.5	6.0	5.5	5.5	5.0	11.5	11.0	9.5	8.5
20	13.0	12.0	11.0	11.0	5.5	5.0	5.5	5.0	11.0	10.5	10.0	8.5
21	12.5	11.5	11.0	10.5	5.0	5.0	5.5	5.5	10.5	10.0	11.0	9.5
22	12.0	11.0	11.0	11.0	5.0	4.5	6.0	5.5	10.0	9.5	11.5	10.0
23	11.5	10.5	11.0	10.5	5.0	4.5	5.5	5.5	10.0	9.0	11.5	10.5
24	11.0	10.0	10.5	10.0	5.0	4.5	6.0	5.0	9.0	8.0	11.0	10.0
25	10.5	10.0	10.5	10.0	4.5	4.5	5.5	5.0	8.0	7.5	11.0	10.0
26	11.0	10.0	10.0	8.5	4.5	4.5	5.0	4.5	8.0	7.5	10.5	10.0
27	10.5	10.0	8.5	7.0	5.0	4.5	5.0	4.0	8.5	8.0	11.0	10.0
28	10.5	10.0	7.0	6.0	5.0	5.0	4.5	4.0	8.5	8.0	10.5	9.5
29	10.5	10.0	6.0	5.5	5.0	5.0	4.5	4.0	---	---	10.0	9.5
30	10.5	10.0	5.5	5.0	5.5	5.0	4.5	4.0	---	---	10.0	9.0
31	11.0	10.5	---	---	5.0	5.0	5.0	4.5	---	---	9.0	8.5
MONTH	18.5	10.0	12.5	5.0	6.0	4.0	6.0	2.0	11.5	5.0	11.5	7.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	8.5	16.0	15.5	17.5	16.0	24.5	23.5	26.0	25.0	22.0	20.5
2	10.0	9.0	15.5	15.0	18.0	16.0	23.5	22.5	27.0	25.5	22.0	21.0
3	10.5	9.5	15.5	14.0	17.5	16.5	23.0	21.5	27.5	26.0	22.0	21.0
4	12.0	10.5	14.0	13.0	18.0	16.5	21.5	20.5	26.5	25.5	22.5	21.5
5	13.0	11.5	13.0	11.5	19.5	17.0	21.0	20.0	26.0	25.0	22.0	21.0
6	13.5	12.0	11.5	11.0	20.5	19.0	21.0	19.0	26.0	24.5	22.0	20.5
7	13.5	13.0	11.5	10.5	21.5	19.5	22.0	20.0	26.0	24.5	22.0	21.0
8	13.5	12.5	12.0	10.5	21.5	20.0	22.5	21.0	26.0	24.5	21.5	20.5
9	12.5	12.0	13.5	11.5	21.5	20.0	22.5	21.0	26.5	25.0	21.5	20.0
10	11.5	11.0	13.0	12.5	21.0	19.5	22.0	20.0	27.0	25.5	21.5	20.5
11	12.5	11.0	14.0	12.5	19.5	18.5	23.0	21.0	27.0	26.0	21.5	20.5
12	13.0	11.5	13.5	12.0	19.5	18.0	23.0	21.5	27.5	26.0	21.5	20.5
13	13.0	12.0	13.5	12.5	20.5	18.5	22.0	20.5	26.5	25.0	21.5	21.0
14	13.5	11.5	14.0	13.0	21.0	19.0	23.0	21.5	25.5	24.0	21.0	19.5
15	13.0	12.5	14.0	13.0	21.0	19.5	24.0	22.5	25.0	24.0	19.5	19.0
16	13.5	12.0	14.0	13.0	22.5	20.0	24.5	23.0	26.0	24.5	19.0	18.0
17	14.0	12.0	13.5	12.0	22.0	21.0	24.5	23.5	26.0	25.0	18.5	18.0
18	13.5	12.0	12.0	11.0	21.5	20.0	24.0	23.5	25.5	24.0	18.0	17.5
19	14.0	12.0	12.5	11.0	20.5	19.5	23.5	22.0	24.5	23.5	17.5	17.0
20	13.0	12.5	13.5	12.0	20.0	19.5	24.0	22.5	24.0	22.5	17.0	16.5
21	13.0	12.5	15.0	13.5	22.0	19.5	24.0	22.5	22.5	22.0	17.0	16.0
22	13.5	12.5	14.5	14.0	22.0	21.0	25.0	23.5	23.0	21.5	17.0	16.0
23	13.5	12.5	14.0	13.5	23.0	21.0	25.5	24.0	23.0	22.0	17.0	16.5
24	14.0	13.0	14.5	13.0	23.5	21.5	25.5	24.5	22.5	22.0	16.5	16.0
25	14.0	13.5	14.0	13.5	23.5	22.5	---	---	22.0	21.0	16.5	16.0
26	15.0	13.0	14.5	13.5	24.0	21.5	---	---	21.0	20.5	16.5	16.0
27	15.5	13.5	14.0	13.5	24.0	22.0	---	---	21.0	20.0	16.5	16.0
28	15.0	14.5	14.5	13.0	25.0	22.5	---	---	21.0	20.5	16.0	15.0
29	15.5	14.5	15.0	13.0	25.0	23.0	24.0	22.5	22.0	20.5	15.5	15.0
30	16.5	15.0	15.5	14.5	24.5	23.0	25.0	23.0	22.0	21.0	15.0	14.0
31	---	---	17.0	15.0	---	---	26.0	24.0	21.5	20.5	---	---
MONTH	16.5	8.5	17.0	10.5	25.0	16.0	26.0	19.0	27.5	20.0	22.5	14.0

14323280 EEL LAKE NEAR LAKESIDE, OR

LOCATION.--Lat 43°36'17", long 124°10'28", in SE¼NW¼ sec.6, T.23 S., R.12 W., Coos County, Hydrologic Unit 17100304, on west shore 0.1 mi (0.2 km) south of Clear Creek and 1.9 mi (3.1 km) north of Lakeside.

DRAINAGE AREA.--8.70 mi^2 (22.5 km^2).

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is 56.00 ft (17.069 m) above mean sea level; gage readings have been reduced to elevations above mean sea level.

REMARKS.--Lake not regulated. Lake outlet is a sand channel which is subject to shifting at high stages. Some water is pumped from lake for filtration and distribution purposes by Lakeside Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 64.25 ft (19.583 m) Dec. 22, 1973; minimum, 56.93 ft (17.352 m) Aug. 22, 23, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum recorded elevation, 59.58 ft (18.160 m) Mar. 12, 13; minimum, 56.93 ft (17.352 m) Aug. 22, 23.

ELEVATION, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	57.53	57.90	58.06	58.03	58.81	58.86	58.10	58.07	57.61	57.18	57.14
2	---	57.54	57.89	58.10	58.02	58.95	58.82	58.08	58.06	57.59	57.16	57.15
3	---	57.55	57.88	58.11	58.00	59.06	58.78	58.13	58.06	57.58	57.14	57.17
4	57.44	57.56	57.87	58.13	57.99	59.06	58.74	58.13	58.07	57.56	57.13	57.18
5	57.43	57.57	57.86	58.12	57.98	59.03	58.70	58.15	58.05	57.54	57.13	57.19
6	57.42	57.57	57.86	58.12	57.97	59.08	58.66	58.13	58.04	57.52	57.12	57.19
7	57.41	57.57	57.85	58.12	57.95	59.29	58.62	58.11	58.02	57.51	57.10	57.19
8	57.40	57.57	57.95	58.11	57.95	59.43	58.61	58.08	57.98	57.50	57.09	57.19
9	57.40	57.57	57.95	58.10	57.95	59.52	58.58	58.06	57.95	57.48	57.08	57.18
10	57.40	57.57	57.95	58.10	57.96	59.52	58.55	58.07	57.94	57.46	57.07	57.18
11	57.40	57.57	57.95	58.12	57.95	59.52	58.52	58.05	57.92	57.45	57.05	57.18
12	57.39	57.57	57.95	58.15	57.97	59.58	58.50	58.03	57.89	57.44	57.04	57.18
13	57.39	57.60	57.94	58.18	57.97	59.57	58.49	58.01	57.87	57.42	57.03	57.18
14	57.38	57.62	57.94	58.20	57.96	59.51	58.45	58.00	57.85	57.40	57.02	57.18
15	57.38	57.86	57.93	58.20	57.95	59.44	58.44	58.04	57.82	57.38	57.01	57.17
16	57.38	57.90	57.93	58.19	57.95	59.36	58.43	58.09	57.80	57.37	56.99	57.17
17	57.37	57.95	57.94	58.18	57.95	59.30	58.40	58.09	57.78	57.36	56.98	57.17
18	57.36	57.97	57.94	58.17	57.94	59.28	58.37	58.08	57.76	57.35	56.98	57.20
19	57.36	57.98	57.93	58.16	57.94	59.25	58.34	58.06	57.75	57.34	56.97	57.26
20	57.36	57.97	57.92	58.15	58.01	59.19	58.32	58.05	57.76	57.33	56.96	57.30
21	57.35	57.98	57.92	58.14	58.07	59.14	58.30	58.05	57.75	57.31	56.94	57.31
22	57.35	57.97	57.92	58.13	58.13	59.10	58.27	58.04	57.74	57.30	56.93	57.31
23	57.34	57.96	57.93	58.12	58.21	59.10	58.25	58.04	57.72	57.28	56.93	57.38
24	57.42	57.97	57.92	58.10	58.26	59.07	58.23	58.02	57.71	57.27	56.96	57.42
25	57.44	57.96	57.98	58.08	58.37	59.02	58.22	58.04	57.70	57.25	56.99	57.44
26	57.45	57.95	58.03	58.07	58.48	58.97	58.20	58.05	57.69	57.24	57.01	57.45
27	57.45	57.94	58.05	58.06	58.58	58.98	58.17	58.07	57.67	57.23	57.04	57.49
28	57.45	57.92	58.06	58.05	58.76	58.95	58.15	58.07	57.65	57.22	57.06	57.51
29	57.46	57.91	58.07	58.04	---	58.94	58.13	58.06	57.64	57.21	57.07	57.51
30	57.46	57.90	58.06	58.03	---	58.90	58.12	58.05	57.63	57.20	57.10	57.52
31	57.50	---	58.05	58.04	---	58.88	---	58.08	---	57.19	57.12	---
MEAN	---	57.77	57.95	58.12	58.08	59.19	58.44	58.07	57.84	57.38	57.04	57.27
MAX	---	57.98	58.07	58.20	58.76	59.58	58.86	58.15	58.07	57.61	57.18	57.52
MIN	---	57.53	57.85	58.03	57.94	58.81	58.12	58.00	57.63	57.19	56.93	57.14

14324500 WEST FORK MILLICOMA RIVER NEAR ALLEGANY, OR

LOCATION.--Lat 43°28'35", long 124°03'20", in SW¼NW¼ sec.19, T.24 S., R.11 W., Coos County, Hydrologic Unit 17100304, on left bank at highway bridge, 40 ft (12 m) upstream from Daggett Creek, 3.8 mi (6.1 km) north of Allegany, and at mile 6.82 (10.97 km).

DRAINAGE AREA.--46.9 mi^2 (121.5 km^2).

PERIOD OF RECORD.--September 1954 to current year.

REVISED RECORDS.--WSP 1718: 1955-59. WRD Oreg. 1973: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 76.95 ft (23.454 m) above mean sea level.

REMARKS.--Records fair. No regulation. Only minor diversions for irrigation above station.

AVERAGE DISCHARGE.--23 years, 255 ft^3/s (7.222 m^3/s), 73.84 in/yr (1,876 mm/yr), 184,700 acre-ft/yr (228 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,100 ft^3/s (229 m^3/s) Nov. 24, 1960, gage height, 15.86 ft (4.834 m); minimum, 1.8 ft^3/s (0.051 m^3/s) Sept. 5, 9, 1965, Sept. 8-10, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January or November 1953 reached a stage of about 17.9 ft (5.46 m), from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,830 ft^3/s (51.8 m^3/s) Mar. 7, 8, gage height, 7.15 ft (2.179 m), no peak above base of 3,000 ft^3/s (85.0 m^3/s); minimum, 4.1 ft^3/s (0.12 m^3/s) Oct. 1, 2, 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	42	20	38	26	815	226	33	98	17	8.8	27
2	4.8	49	20	50	24	595	210	32	83	16	8.8	21
3	5.0	34	19	90	23	858	183	68	74	16	8.4	24
4	5.3	25	19	130	22	486	157	92	80	16	7.7	28
5	5.6	19	18	100	26	306	137	116	72	16	7.1	26
6	5.0	14	18	75	28	246	116	123	61	14	6.7	23
7	4.8	12	18	60	20	1350	103	98	54	14	6.7	20
8	4.6	9.6	30	55	23	1260	106	80	49	14	6.7	17
9	4.6	8.8	90	50	23	1120	96	66	48	14	7.1	14
10	5.0	8.1	70	48	23	738	86	66	44	14	6.1	13
11	5.3	7.4	50	55	27	471	78	68	42	14	6.4	12
12	5.3	7.1	44	100	29	600	72	57	40	13	6.1	11
13	5.3	6.7	36	90	31	577	83	49	39	12	5.9	10
14	5.0	9.2	34	80	30	412	78	48	36	12	5.6	9.6
15	4.6	108	30	60	28	318	70	64	34	11	5.6	9.2
16	4.1	195	28	55	26	249	70	140	33	10	5.9	9.2
17	4.3	106	26	50	25	208	64	174	31	9.6	5.9	9.2
18	4.3	81	24	46	24	195	57	145	30	8.8	5.9	14
19	4.3	61	22	42	23	232	54	116	30	8.4	5.9	49
20	4.6	55	22	40	29	229	51	96	30	8.4	5.9	74
21	4.6	50	22	38	76	193	48	88	30	8.1	6.1	61
22	4.8	44	22	36	213	162	45	80	28	8.1	6.7	40
23	4.8	38	22	34	237	176	42	76	26	7.7	7.4	40
24	8.4	36	22	32	502	243	40	74	23	8.4	26	112
25	33	32	24	30	441	213	39	64	23	9.2	34	92
26	30	30	34	28	471	179	40	110	22	9.2	26	83
27	14	28	65	26	416	321	35	142	21	9.2	20	62
28	8.4	26	60	26	1140	355	34	176	20	9.2	29	74
29	7.1	24	57	24	---	338	35	147	19	8.8	74	72
30	5.9	22	49	24	---	276	37	116	17	9.2	59	57
31	7.7	---	42	24	---	221	---	101	---	8.8	44	---
TOTAL	224.8	1187.9	1057	1636	4006	13942	2492	2905	1237	354.1	465.4	1113.2
MEAN	7.25	39.6	34.1	52.8	143	450	83.1	93.7	41.2	11.4	15.0	37.1
MAX	33	195	90	130	1140	1350	226	176	98	17	74	112
MIN	4.1	6.7	18	24	20	162	34	32	17	7.7	5.6	9.2
CFSM	.16	.84	.73	1.13	3.05	9.60	1.77	2.00	.88	.24	.32	.79
IN.	.18	.94	.84	1.30	3.18	11.06	1.98	2.30	.98	.28	.37	.88
AC-FT	446	2360	2100	3250	7950	27650	4940	5760	2450	702	923	2210

CAL YR 1976 TOTAL 55768.3 MEAN 152 MAX 5000 MIN 2.2 CFSM 3.24 IN 44.23 AC-FT 110600
WTR YR 1977 TOTAL 30620.4 MEAN 83.9 MAX 1350 MIN 4.1 CFSM 1.79 IN 24.29 AC-FT 60740

NOTE.--No gage-height record Nov. 20 to Dec. 28, Dec. 31 to Jan. 31.

14324580 PONY CREEK AT COOS BAY, OR

LOCATION.--Lat 43°22'50", long 124°14'24", in SE¼SE¼ sec.21, T.25 S., R.13 W., Coos County, Hydrologic Unit 17100304, at Ocean Boulevard in town of Coos Bay, 250 ft (76 m) below Lower Pony Creek Dam, and at mile 2.2 (3.5 km).

DRAINAGE AREA.--3.90 mi^2 (10.1 km^2).

PERIOD OF RECORD.--July 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is 12.23 ft (3.728 m) above mean sea level (Coos Bay-North Bend Water Board bench mark).

REMARKS.--Records excellent. Flow regulated by Upper and Lower Pony Creek Reservoirs (see stations 14324550 and 14324560) and diversion above station from Lower Pony Creek Reservoir to municipal water supply of Coos Bay-North Bend (station 14324570). Approximately 4.6 ft^3/s (0.13 m^3/s) is diverted to the Coos Bay-North Bend water treatment plant, maximum capacity, 10.8 ft^3/s (0.31 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61 ft^3/s (1.73 m^3/s) Dec. 16, 1975, gage height, 3.98 ft (1.213 m); minimum, 0.01 ft^3/s (<0.001 m^3/s) on many days in 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6.7 ft^3/s (0.19 m^3/s) Nov. 1, gage height, 2.10 ft (0.640 m); minimum, 0.01 ft^3/s (<0.001 m^3/s) on many days.

MONTHLY DISCHARGE OF PONY CREEK, PONY CREEK DIVERSION AND MONTHLY CHANGE IN CONTENTS OF RESERVOIRS NEAR COOS BAY, OR, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Runoff in acre-feet

	14324580 Pony Creek at Coos Bay	14324570 Diversion from Lower Pony Cr. Reservoir to City of Coos Bay	14324560 Lower Pony Creek Reservoir Change in Contents	14324550 Upper Pony Creek Reservoir Change in Contents	Pony Creek flow adjusted for Regulation and Diversion	Runoff in Inches
October	46	360	+14	-324	96	0.46
November	18	304	-50	-84	188	.90
December	5.3	288	+33	-170	156	.75
CAL YR 1976	-	-	-	-	-	-
January	2.4	266	-98	+63	233	1.12
February	1.4	155	-108	+131	179	.86
March	2.0	146	+29	+786	963	4.63
April	.8	157	-32	+240	366	1.76
May	.9	124	-2	+180	303	1.46
June	1.1	173	+152	-150	176	.85
July	2.1	287	+26	-240	75	.36
August	2.3	274	+5	-103	178	.86
September	1.8	176	-60	+133	251	1.21
WTR YR 1977	84.1	2,710	-91	+462	3,164	15.22

14324580 PONY CREEK AT COOS BAY, OR—Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	4.1	.07	.09	.01	.06	.02	.01	.02	.03	.05	.03
2	.18	1.9	.07	.09	.01	.07	.02	.01	.02	.03	.04	.04
3	.18	.18	.08	.09	.01	.06	.02	.02	.02	.03	.03	.03
4	.18	.17	.08	.10	.01	.04	.02	.01	.02	.03	.03	.03
5	.18	.17	.08	.10	.01	.04	.02	.02	.02	.04	.03	.03
6	.18	.15	.08	.06	.01	.05	.02	.01	.01	.04	.03	.03
7	.18	.14	.09	.04	.01	.06	.01	.01	.01	.04	.03	.03
8	.18	.13	.10	.04	.01	.05	.02	.01	.01	.04	.03	.03
9	.18	.12	.08	.04	.01	.04	.01	.01	.01	.04	.03	.03
10	.19	.12	.08	.04	.01	.03	.01	.01	.01	.04	.03	.03
11	.19	.11	.08	.04	.01	.03	.01	.01	.01	.04	.03	.03
12	.19	.11	.09	.04	.01	.04	.01	.01	.02	.04	.03	.03
13	.21	.10	.09	.04	.01	.03	.02	.01	.02	.05	.04	.03
14	.17	.10	.09	.03	.01	.02	.01	.01	.02	.04	.04	.03
15	.18	.12	.09	.03	.01	.02	.01	.01	.02	.03	.04	.03
16	.18	.11	.09	.03	.01	.03	.01	.02	.02	.03	.04	.03
17	.17	.10	.09	.02	.01	.04	.01	.01	.02	.03	.04	.03
18	.27	.09	.09	.02	.01	.04	.01	.01	.02	.03	.04	.05
19	.18	.08	.09	.02	.01	.03	.02	.01	.02	.03	.04	.04
20	.18	.08	.09	.02	.02	.02	.02	.01	.02	.03	.04	.03
21	.42	.07	.08	.02	.05	.02	.02	.01	.02	.03	.04	.03
22	.35	.07	.09	.02	.06	.02	.01	.01	.02	.03	.04	.03
23	.80	.07	.09	.02	.07	.02	.01	.02	.02	.03	.05	.03
24	2.6	.06	.08	.02	.08	.02	.01	.02	.02	.03	.06	.03
25	3.9	.06	.09	.02	.06	.02	.01	.02	.02	.02	.04	.03
26	1.5	.07	.09	.02	.06	.02	.01	.02	.02	.03	.04	.02
27	.80	.07	.09	.02	.06	.02	.01	.01	.02	.03	.04	.03
28	1.1	.07	.09	.02	.07	.02	.01	.02	.02	.03	.04	.03
29	2.2	.07	.09	.02	---	.02	.01	.02	.02	.03	.04	.03
30	2.2	.07	.09	.02	---	.02	.01	.02	.03	.03	.04	.02
31	3.6	---	.09	.02	---	.02	---	.03	---	.04	.03	---
TOTAL	23.20	8.86	2.67	1.20	.72	1.02	.41	.43	.55	1.04	1.17	.92
MEAN	.75	.30	.086	.039	.026	.033	.014	.014	.018	.034	.038	.031
MAX	3.9	4.1	.10	.10	.08	.07	.02	.03	.03	.05	.06	.05
MIN	.17	.06	.07	.02	.01	.02	.01	.01	.01	.02	.03	.02
AC-FT	46	18	5.3	2.4	1.4	2.0	.8	.9	1.1	2.1	2.3	1.8

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CAL YR 1976  TOTAL 919.16  MEAN 2.51  MAX   25  MIN .06  AC-FT 1820
WTR YR 1977  TOTAL  42.19  MEAN  .12  MAX  4.1  MIN .01  AC-FT   84
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14325000 SOUTH FORK COQUILLE RIVER AT POWERS, OR

LOCATION.--Lat 42°53'30", long 124°04'10", in SE¼ sec.12, T.31 S., R.12 W., Coos County, Hydrologic Unit 17100305, on left bank 0.6 mi (1.0 km) downstream from nighway bridge at Powers, 0.9 mi (1.4 km) upstream from Woodward Creek, and at mile 64.5 (103.8 km).

DRAINAGE AREA.--169 mi^2 (438 km^2).

PERIOD OF RECORD.--September 1916 to September 1926, October 1928 to current year.

REVISED RECORDS.--WSP 1184: 1946(M). WSP 1448: 1917-18(M), 1919, 1920(M), 1925.

GAGE.--Water-stage recorder. Datum of gage is 197.42 ft (60.174 m) above mean sea level. Prior to Nov. 17, 1938, nonrecording gages at various sites within 1 mi (2 km) of present site at different datums.

REMARKS.--Records good. No regulation. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--38 years (water years 1917-26, 1930-77), 786 ft^3/s (22.26 m^3/s), 63.16 in/yr (1,604 mm/yr), 569,700 acre-ft/yr (702 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,900 ft^3/s (1,380 m^3/s) Dec. 22, 1964, gage height, 26.51 ft (8.080 m), from floodmarks, from rating curve extended above 19,000 ft^3/s (538 m^3/s) on basis of contracted-opening measurement at gage height 18.14 ft (5.529 m) and slope-area measurement of peak flow; minimum, 12 ft^3/s (0.34 m^3/s) Sept. 22-25, 27-30, 1939, Oct. 5, 1961, Oct. 16-20, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,290 ft^3/s (178 m^3/s) Mar. 7, gage height, 8.05 ft (2.454 m), no peak above base of 9,300 ft^3/s (263 m^3/s); minimum, 14 ft^3/s (0.40 m^3/s) Oct. 18-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	220	33	48	48	1160	760	160	297	66	28	44
2	20	171	33	69	47	878	831	157	267	64	28	40
3	21	97	32	241	45	1250	714	563	244	61	27	39
4	20	69	31	197	43	972	674	737	244	61	26	37
5	19	54	31	147	41	708	680	798	235	59	26	35
6	19	45	30	115	44	647	620	831	208	58	25	37
7	18	40	30	93	43	3930	574	674	192	56	25	34
8	17	37	39	80	43	3690	599	558	181	54	25	33
9	17	34	101	71	44	3260	510	462	168	52	24	31
10	17	33	76	73	41	1910	422	410	157	52	23	31
11	17	34	58	87	40	1260	369	449	155	51	23	30
12	17	34	51	267	40	1600	337	422	147	49	22	30
13	17	34	45	197	40	1280	357	369	138	48	22	28
14	16	73	43	152	39	952	369	330	131	47	22	27
15	16	85	40	128	38	737	326	326	126	45	22	28
16	16	87	39	111	37	605	304	748	117	44	22	28
17	15	73	38	97	37	531	280	1260	113	43	21	28
18	15	64	37	87	35	485	257	1020	111	40	21	43
19	15	56	37	80	34	510	235	773	107	40	21	270
20	15	52	35	74	48	569	223	605	103	39	21	247
21	15	48	34	69	308	558	208	508	101	38	22	140
22	15	45	33	66	719	552	194	431	97	37	23	97
23	15	43	35	63	542	636	184	449	93	35	22	78
24	18	40	35	58	620	912	176	414	87	34	165	171
25	66	39	34	55	414	857	178	369	84	34	126	131
26	66	38	37	54	389	702	186	495	82	33	84	103
27	40	37	74	51	467	785	163	510	76	33	67	103
28	31	37	63	49	1570	871	155	481	73	31	52	1000
29	30	35	56	48	---	831	157	418	69	31	51	785
30	38	34	56	45	---	754	155	365	67	30	54	389
31	33	---	52	45	---	680	---	323	---	29	51	---
TOTAL	713	1788	1368	3017	5856	35072	11197	16407	4270	1394	1191	4117
MEAN	23.0	59.6	44.1	97.3	209	1131	373	529	142	45.0	38.4	137
MAX	66	220	101	267	1570	3930	831	1260	297	66	165	1000
MIN	15	33	30	45	34	485	155	157	67	29	21	27
CFSM	.14	.35	.26	.58	1.24	6.69	2.21	3.13	.84	.27	.23	.81
IN.	.16	.39	.30	.66	1.29	7.72	2.46	3.61	.94	.31	.26	.91
AC-FT	1410	3550	2710	5980	11620	69570	22210	32540	8470	2760	2360	8170

CAL YR 1976 TOTAL 138418 MEAN 378 MAX 7580 MIN 15 CFSM 2.24 IN 30.47 AC-FT 274600
WTR YR 1977 TOTAL 86390 MEAN 237 MAX 3930 MIN 15 CFSM 1.40 IN 19.02 AC-FT 171400

14326800 NORTH FORK COQUILLE RIVER NEAR FAIRVIEW, OR

LOCATION.--Lat 43°10'45", long 124°05'10", in NE¼NE¼ sec.2, T.28 S., R.12 W., Coos County, Hydrologic Unit 17100305, on right bank 0.7 mi (1.1 km) downstream from Lost Creek, 2.6 mi (4.2 km) south of Fairview, and at mile 21.7 (34.9 km).

DRAINAGE AREA.--74.0 mi^2 (191.7 km^2).

PERIOD OF RECORD.--October 1963 to current year.

REVISED RECORDS.--WRD Oreg. 1972: 1964-67, 1969-71(M,P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 63.34 ft (19.306 m) above mean sea level (from stadia survey). Supplementary water-stage recorder and crest-stage gage 0.5 mi (0.8 km) upstream (used during periods of backwater at base gage).

REMARKS.--Records fair. No regulation. Several diversions for irrigation by pumping above station.

AVERAGE DISCHARGE.--14 years, 291 ft^3/s (8.241 m^3/s), 53.40 in/yr (1,356 mm/yr), 210,800 acre-ft/yr (260 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,760 ft^3/s (220 m^3/s) Mar. 2, 1972; maximum gage height at supplementary gage, 18.80 ft (5.730 m) Jan. 8, 1976, backwater from ponding in valley below; maximum gage height at supplementary gage unaffected by backwater, 18.03 ft (5.496 m), Jan. 8, 1976; minimum discharge, 2.0 ft^3/s (0.057 m^3/s) Sept. 9, 10, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,320 ft^3/s (37.4 m^3/s) Mar. 9, at supplementary gage, no peak above base of 3,000 ft^3/s (85.0 m^3/s); maximum gage height at supplementary gage unaffected by backwater, 7.90 ft (2.408 m) Mar. 9; minimum discharge, 4.4 ft^3/s (0.12 m^3/s) Aug. 5, 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	47	15	20	25	662	285	55	104	21	6.0	33
2	5.6	71	14	25	25	523	257	54	95	20	5.8	23
3	7.2	41	14	98	23	847	227	117	87	19	5.5	21
4	8.0	28	14	102	22	497	203	159	98	19	4.8	25
5	7.2	22	13	84	21	326	184	239	95	19	4.4	21
6	6.8	19	13	69	22	267	169	239	81	18	4.6	18
7	6.4	17	12	58	20	1030	155	174	74	17	5.3	16
8	6.0	15	17	50	20	932	159	142	70	16	5.5	13
9	5.6	14	55	45	21	1150	151	123	64	16	6.0	12
10	5.6	14	43	42	22	848	139	120	59	15	5.5	11
11	5.6	14	32	48	23	564	130	132	59	14	5.0	11
12	5.6	13	27	82	24	791	117	114	58	12	4.6	10
13	5.6	13	25	75	24	743	123	102	54	12	4.6	10
14	5.2	17	21	66	24	526	122	98	50	11	4.4	10
15	4.4	51	20	59	23	399	111	109	49	11	4.6	10
16	5.2	100	20	54	21	314	105	184	45	10	4.6	10
17	5.2	60	19	49	20	265	98	209	42	10	4.8	11
18	5.2	47	18	45	20	246	90	174	44	9.3	4.8	14
19	5.2	39	18	42	19	299	87	155	44	8.7	4.6	57
20	6.0	32	18	40	22	266	82	135	41	8.4	4.8	64
21	6.0	28	17	37	68	231	78	127	45	8.4	5.0	54
22	6.0	25	17	34	184	216	74	120	40	7.8	5.3	37
23	6.4	22	17	32	196	265	70	125	35	7.8	5.3	30
24	9.0	21	17	30	311	358	66	132	32	6.9	50	112
25	23	19	17	29	282	302	64	115	31	7.5	44	90
26	36	18	20	27	352	255	64	123	30	7.8	32	87
27	34	17	25	27	311	317	59	132	28	7.8	34	66
28	26	17	26	25	794	352	56	142	26	7.5	30	88
29	13	16	25	25	---	352	58	123	23	6.9	82	95
30	10	16	24	25	---	326	56	112	22	6.6	63	71
31	10	---	22	25	---	285	---	102	---	6.0	54	---
TOTAL	297.0	873	655	1469	2939	14754	3639	4187	1625	367.4	504.8	1130
MEAN	9.58	29.1	21.1	47.4	105	476	121	135	54.2	11.9	16.3	37.7
MAX	36	100	55	102	794	1150	285	239	104	21	82	112
MIN	4.4	13	12	20	19	216	56	54	22	6.0	4.4	10
CFSM	.13	.39	.29	.64	1.42	6.43	1.64	1.82	.73	.16	.22	.51
IN.	.15	.44	.33	.74	1.48	7.42	1.83	2.10	.82	.18	.25	.57
AC-FT	589	1730	1300	2910	5830	29260	7220	8300	3220	729	1000	2240

CAL YR 1976 TOTAL 63602.6 MEAN 174 MAX 5740 MIN 4.0 CFSM 2.35 IN 31.97 AC-FT 126200
WTR YR 1977 TOTAL 32440.2 MEAN 88.9 MAX 1150 MIN 4.4 CFSM 1.20 IN 16.31 AC-FT 64350

14328000 ROGUE RIVER ABOVE PROSPECT, OR

LOCATION.--Lat 42°46'30", long 122°29'55", in SE¼NE¼ sec.19, T.32 S., R.3 E., Jackson County, Hydrologic Unit 17100307, Rogue River National Forest, on left bank 1.4 mi (2.3 km) upstream from Pacific Power & Light Co. diversion dam, 1.8 mi (2.9 km) northwest of Prospect, and at mile 173.4 (279.0 km).

DRAINAGE AREA.--312 mi^2 (808 km^2).

PERIOD OF RECORD.--January 1908 to February 1912, October 1923 to current year. Monthly discharge only for some periods, published in WSP 1318. Prior to October 1925, published as "near Prospect."

REVISED RECORDS.--WSP 1248: 1925, 1927(M). WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,620 ft (799 m), from river-profile map. Prior to Feb. 17, 1912, nonrecording gage at several sites within a few hundred feet upstream at various datums.

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--57 years (water years 1909-11, 1924-77), 823 ft^3/s (23.31 m^3/s), 35.82 in/yr (910 mm/yr), 596,300 acre-ft/yr (735 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,400 ft^3/s (634 m^3/s) Dec. 22, 1964, gage height, 11.55 ft (3.520 m), from floodmark, from rating curve extended above 9,000 ft^3/s (255 m^3/s) on basis of slope-area measurement at 16,600 ft^3/s (470 m^3/s); minimum observed, 200 ft^3/s (5.66 m^3/s) Nov. 20, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,180 ft^3/s (33.4 m^3/s) Sept. 28, gage height, 2.75 ft (0.838 m), no peak above base of 2,700 ft^3/s (76.5 m^3/s); minimum, 299 ft^3/s (8.47 m^3/s) Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	525	573	425	407	402	491	486	716	702	388	323	319
2	568	535	425	425	393	455	491	825	668	411	323	315
3	540	509	425	416	393	450	496	832	635	384	323	315
4	530	504	425	411	393	425	562	810	628	379	319	311
5	525	499	421	402	393	435	668	788	635	375	319	311
6	519	493	421	344	397	440	723	730	642	375	319	307
7	519	488	421	407	393	455	788	709	628	370	319	307
8	514	483	425	388	402	584	942	668	603	366	323	303
9	509	483	435	379	402	579	832	675	567	362	323	303
10	509	483	421	450	402	507	702	773	545	362	315	303
11	504	483	425	460	407	481	675	759	609	353	311	303
12	504	478	421	425	407	491	695	723	539	353	311	303
13	504	478	421	411	407	465	759	695	512	353	311	311
14	504	530	416	407	407	450	716	688	502	353	311	311
15	499	545	416	397	407	440	695	682	481	349	311	311
16	499	523	416	397	407	435	759	695	465	349	307	319
17	499	475	416	397	407	435	716	709	455	344	307	319
18	499	465	407	402	402	430	668	695	450	344	311	340
19	493	455	407	402	397	440	635	682	440	349	307	349
20	493	450	407	411	407	460	635	695	435	344	307	357
21	493	445	407	411	440	465	642	716	435	340	311	340
22	493	445	411	411	435	496	661	744	425	336	307	323
23	493	440	411	407	416	556	661	817	416	336	307	332
24	493	440	402	402	411	534	675	795	411	336	357	440
25	584	440	411	397	402	496	737	751	402	336	370	370
26	551	435	435	393	411	491	709	832	397	336	379	370
27	509	421	421	393	425	534	668	788	393	332	349	349
28	504	430	411	393	562	523	675	730	388	327	340	709
29	504	430	417	393	---	496	661	702	384	327	344	688
30	504	430	407	393	---	481	688	682	379	327	340	425
31	519	---	402	402	---	475	---	675	---	323	327	---
TOTAL	15903	14288	12931	12533	11527	14895	20420	22781	15171	10919	10031	10663
MEAN	513	476	417	404	412	480	681	735	506	352	324	355
MAX	584	573	435	460	562	584	942	832	702	411	379	709
MIN	493	421	402	344	393	425	486	668	379	323	307	303
CFSM	1.64	1.53	1.34	1.30	1.32	1.54	2.18	2.36	1.62	1.13	1.04	1.14
IN.	1.90	1.70	1.54	1.49	1.37	1.78	2.43	2.72	1.81	1.30	1.20	1.27
AC-FT	31540	28340	25650	24860	22860	29540	40500	45190	30090	21660	19900	21150

CAL YR 1976 TOTAL 306010 MEAN 836 MAX 2340 MIN 402 CFSM 2.68 IN 36.49 AC-FT 607000
WTR YR 1977 TOTAL 172062 MEAN 471 MAX 942 MIN 303 CFSM 1.51 IN 20.51 AC-FT 341300

14330000 ROGUE RIVER BELOW PROSPECT, OR

LOCATION.--Lat 42°43'50", long 122°30'55", in SE¼NW¼ sec.6, T.33 S., R.3 E., Jackson County, Hydrologic Unit 17100307, on right bank 600 ft (183 m) downstream from Prospect No. 1 powerplant, 1.4 mi (2.3 km) downstream from Mill Creek, 2.0 mi (3.2 km) southwest of Prospect, 2.1 mi (3.4 km) upstream from South Fork Rogue River, and at mile 169.4 (272.6 km).

DRAINAGE AREA.--379 mi^2 (982 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1913 to September 1930, October 1968 to current year.

REVISED RECORDS.--WSP 1518: 1914-23, 1924(M), 1925, 1928.

GAGE.--Water-stage recorder. Altitude of gage is 1,970 ft (600 m), from topographic map. Prior to September 1927 nonrecording gage at site 1,000 ft (305 m) upstream, above powerplants, at different datum, also concurrent nonrecording gage on headrace to obtain equivalent combined flow.

REMARKS.--Water-discharge records good. Small fluctuations caused by powerplant 600 ft (183 m) above station. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--26 years, 1,225 ft^3/s (34.69 m^3/s), 887,500 acre-ft/yr (1,090 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,900 ft^3/s (309 m^3/s) Jan. 18, 1971, gage height, 7.62 ft (2.323 m), from high-water mark; minimum, 235 ft^3/s (6.66 m^3/s) Sept. 12, 1977, caused by regulation of diversion gates upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1890, 12.4 ft (3.78 m) Dec. 22, 1964, from floodmarks, discharge, 25,000 ft^3/s (708 m^3/s), from records for station above Prospect (see station 14328000) and for station below South Fork Rogue River near Prospect (see station 14335000) after adjusting for estimated intervening tributary inflow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,010 ft^3/s (56.9 m^3/s) Sept. 28, gage height, 3.07 ft (0.936 m); minimum, 235 ft^3/s (6.66 m^3/s) Sept. 12, caused by regulation of diversion gates upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1060	1130	994	952	934	1050	1050	1330	1380	952	815	790
2	1150	1090	994	1000	918	1010	1050	1460	1340	970	775	785
3	1100	1050	994	976	920	1010	1060	1470	1300	918	740	770
4	1070	1040	988	958	922	976	1140	1460	1280	912	735	770
5	1060	1040	988	929	923	988	1260	1430	1280	912	770	765
6	1060	1040	988	868	929	1000	1300	1370	1290	918	800	765
7	1060	1020	982	912	918	1020	1380	1350	1290	912	810	740
8	1050	1000	990	896	934	1170	1560	1310	1260	901	805	760
9	1050	976	1020	885	934	1170	1440	1310	1220	896	800	760
10	1050	1020	1010	994	929	1090	1300	1410	1170	890	795	770
11	1050	1020	1010	1020	934	1050	1290	1420	1260	890	790	755
12	1060	1020	1000	976	934	1070	1290	1380	1170	885	785	722
13	1000	1020	1000	964	940	1030	1360	1340	1140	879	785	760
14	1060	1090	990	958	940	1010	1300	1340	1120	879	785	760
15	1040	1140	985	946	934	994	1280	1320	1080	874	785	745
16	1040	1130	980	940	934	988	1330	1330	1050	868	780	770
17	1040	1060	970	946	934	988	1320	1340	1050	863	775	770
18	1040	1050	958	952	929	982	1260	1340	1060	863	775	800
19	1040	1040	952	970	923	1000	1210	1320	1050	868	775	795
20	1040	1030	952	958	934	1020	1200	1330	1040	852	770	825
21	1040	1020	958	958	1000	1020	1200	1350	1030	835	780	800
22	1040	1020	958	964	988	1050	1250	1380	1020	846	770	770
23	1030	1020	964	946	958	1140	1240	1480	994	846	765	785
24	1040	1010	946	940	946	1110	1270	1460	988	835	852	929
25	1140	1010	970	934	934	1070	1340	1400	976	841	874	820
26	1070	1010	1000	934	952	1050	1330	1490	964	835	874	825
27	1060	988	976	923	964	1110	1300	1460	958	830	835	805
28	1050	994	958	929	1140	1100	1290	1380	946	825	815	1210
29	1050	994	958	923	---	1060	1280	1350	940	825	830	1300
30	1050	994	958	929	---	1040	1290	1340	934	820	805	934
31	1050	---	946	934	---	1030	---	1340	---	820	805	---
TOTAL	32740	31066	30337	29314	26479	32396	38170	42790	33580	27060	24655	24575
MEAN	1056	1036	979	946	946	1045	1272	1380	1119	873	795	819
MAX	1150	1140	1020	1020	1140	1170	1560	1490	1380	970	874	1300
MIN	1000	976	946	868	918	976	1050	1310	934	820	735	722
AC-FT	64940	61620	60170	58140	52520	64260	75710	84870	66610	53670	48900	48740

CAL YR 1976 TOTAL 547693 MEAN 1496 MAX 3130 MIN 946 AC-FT 1086000
WTR YR 1977 TOTAL 373162 MEAN 1022 MAX 1560 MIN 722 AC-FT 740200

14330000 ROGUE RIVER BELOW PROSPECT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1968 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1976 to current year.
pH: November 1976 to current year.
WATER TEMPERATURES: October 1968 to current year.
TURBIDITY: December 1976 to current year.
SUSPENDED SEDIMENT DISCHARGE: November 1976 to current year.

INSTRUMENTATION.--Water-quality monitor and automatic pumping sediment sampler since November 1976.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 15.5°C June 25, 29, July 16, 21-24, 1977; minimum, 0.0°C Jan. 1, 2, 4, 5, 1970, Mar. 1, 1971.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 70 micromhos Jan. 9, 10; minimum recorded, 49 micromhos, May 27.
pH: Maximum, 7.9 units Jan. 4-9, July 18, 25, Aug. 2, 3, 7, 9, 13-15; minimum, 7.0 units Nov. 30.
WATER TEMPERATURES: Maximum, 15.5°C June 25, 29, July 16, 21-24; minimum recorded, 1.0°C Jan. 6-9.
TURBIDITY: Maximum, 330 JTU Mar. 9; minimum, 0 JTU on many days.
SEDIMENT CONCENTRATIONS: Maximum, 32 mg/l Jan. 20, 21; minimum, 1 mg/l on many days throughout year.
SEDIMENT DISCHARGE: Maximum, 83 tons (75 tonnes) Jan. 20, 21; minimum, 2.0 tons (1.8 tonnes) Sept. 11.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	60	63	---	59	---	52	51	62	65	64
2		---	60	62	---	60	---	51	51	62	65	64
3		---	60	63	---	60	---	50	51	62	66	64
4		---	60	64	---	60	---	50	52	62	66	64
5		---	60	66	---	61	---	51	51	62	66	64
6		---	60	67	---	61	---	53	51	62	65	64
7		---	60	68	---	61	---	53	51	62	64	64
8		---	60	69	---	59	---	54	51	63	64	65
9		---	60	69	61	58	---	54	51	63	64	65
10		---	60	69	61	58	---	53	53	62	64	64
11		---	60	---	61	60	---	52	52	63	64	65
12		---	60	---	61	60	---	53	52	63	64	---
13		---	60	---	61	60	55	54	54	63	64	---
14		---	60	---	61	60	55	53	54	63	64	65
15		---	61	---	61	60	56	53	55	63	64	65
16		---	61	---	61	61	55	53	56	63	64	64
17		61	61	---	61	61	54	53	57	63	64	64
18		61	61	---	61	60	55	54	58	63	64	64
19		61	61	---	61	60	55	54	58	63	65	64
20		61	61	---	61	60	55	54	58	64	65	63
21		61	61	---	60	60	55	53	59	64	64	64
22		61	61	---	59	60	55	52	59	64	64	64
23		61	61	---	60	59	55	51	60	64	64	64
24		61	61	---	61	59	54	51	61	64	63	62
25		60	50	---	61	60	53	51	61	64	62	63
26		60	60	---	61	60	53	51	61	64	63	63
27		61	60	---	61	60	53	50	61	65	63	64
28		61	60	---	59	59	53	51	62	65	64	59
29		60	61	---	---	60	53	52	62	65	64	54
30		60	61	---	---	---	53	52	62	65	64	59
31		---	63	---	---	---	---	52	---	65	64	---

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1				---	---	---	7.1	7.1	7.1	7.8	7.7	7.7
2				---	---	---	7.2	7.2	7.2	7.8	7.7	7.7
3				---	---	---	7.3	7.3	7.3	7.8	7.7	7.7
4				---	---	---	7.4	7.4	7.4	7.9	7.7	7.8
5				---	---	---	7.4	7.4	7.4	7.9	7.8	7.8
6				---	---	---	7.5	7.5	7.5	7.9	7.8	7.8
7				---	---	---	7.6	7.6	7.6	7.9	7.8	7.8
8				---	---	---	7.3	7.1	7.2	7.9	7.8	7.9
9				---	---	---	7.3	7.2	7.2	7.9	7.9	7.9
10				---	---	---	7.4	7.2	7.3	7.9	7.9	7.9
11				---	---	---	7.4	7.3	7.3	---	---	---
12				---	---	---	7.4	7.3	7.4	---	---	---
13				---	---	---	7.5	7.4	7.4	---	---	---
14				---	---	---	7.6	7.5	7.5	---	---	---
15				---	---	---	7.6	7.5	7.5	---	---	---
16				---	---	---	7.1	7.1	7.1	---	---	---
17				7.7	7.6	7.6	7.7	7.6	7.7	---	---	---
18				7.7	7.6	7.6	7.7	7.6	7.6	---	---	---
19				7.7	7.6	7.6	7.7	7.6	7.6	---	---	---
20				7.7	7.6	7.6	7.7	7.6	7.6	---	---	---
21				7.7	7.6	7.6	7.7	7.6	7.6	---	---	---
22				7.7	7.6	7.6	7.7	7.6	7.6	---	---	---
23				7.7	7.6	7.6	7.7	7.6	7.6	---	---	---
24				7.7	7.0	7.4	7.7	7.6	7.6	---	---	---
25				7.2	7.1	7.1	7.7	7.6	7.6	---	---	---
26				7.3	7.2	7.2	7.7	7.6	7.6	---	---	---
27				7.4	7.3	7.3	7.7	7.6	7.6	---	---	---
28				7.4	7.3	7.3	7.6	7.6	7.6	---	---	---
29				7.5	7.0	7.2	7.7	7.6	7.6	---	---	---
30				7.1	7.1	7.1	7.8	7.6	7.7	---	---	---
31				---	---	---	7.8	7.7	7.7	---	---	---
MONTH				7.7	7.0	7.4	7.8	7.1	7.5	7.9	7.7	7.8

14330000 ROGUE RIVER BELOW PROSPECT, OR--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	7.7	7.6	7.7	---	---	---	7.7	7.5	7.5
2	---	---	---	7.7	7.6	7.7	---	---	---	7.6	7.5	7.6
3	---	---	---	7.7	7.6	7.7	---	---	---	7.6	7.5	7.6
4	---	---	---	7.7	7.6	7.7	---	---	---	7.6	7.5	7.6
5	---	---	---	7.7	7.6	7.7	---	---	---	7.6	7.5	7.6
6	---	---	---	7.7	7.6	7.6	---	---	---	7.6	7.5	7.6
7	---	---	---	7.7	7.6	7.6	---	---	---	7.7	7.5	7.6
8	---	---	---	7.7	7.6	7.6	---	---	---	7.7	7.5	7.6
9	---	---	---	7.7	7.6	7.6	---	---	---	7.7	7.5	7.6
10	7.7	7.6	7.6	7.7	7.6	7.6	---	---	---	7.6	7.5	7.6
11	7.7	7.6	7.6	7.7	7.6	7.6	---	---	---	7.6	7.5	7.6
12	7.7	7.6	7.6	7.7	7.6	7.6	7.7	7.5	7.6	7.6	7.5	7.6
13	7.7	7.6	7.6	7.7	7.6	7.7	7.7	7.5	7.6	7.7	7.5	7.6
14	7.7	7.6	7.6	7.7	7.6	7.7	7.7	7.5	7.6	7.7	7.5	7.6
15	7.7	7.6	7.6	7.7	7.6	7.7	7.7	7.5	7.6	7.7	7.5	7.6
16	7.7	7.6	7.6	7.7	7.6	7.7	7.7	7.5	7.6	7.7	7.5	7.6
17	7.7	7.6	7.6	7.7	7.5	7.7	7.7	7.5	7.6	7.7	7.5	7.6
18	7.7	7.6	7.6	7.8	7.5	7.6	7.7	7.5	7.6	7.7	7.5	7.6
19	7.7	7.6	7.6	7.7	7.6	7.7	7.7	7.5	7.6	7.7	7.5	7.6
20	7.7	7.6	7.6	7.7	7.6	7.7	7.7	7.5	7.6	7.7	7.5	7.6
21	7.7	7.6	7.6	7.7	7.6	7.7	7.7	7.5	7.6	7.7	7.5	7.6
22	7.7	7.6	7.6	7.7	7.6	7.6	7.7	7.5	7.6	7.6	7.5	7.6
23	7.8	7.6	7.7	7.7	7.6	7.6	7.7	7.5	7.6	7.6	7.5	7.5
24	7.8	7.6	7.7	7.7	7.6	7.6	7.7	7.5	7.6	7.7	7.5	7.6
25	7.8	7.6	7.7	7.7	7.6	7.6	7.6	7.5	7.6	7.6	7.5	7.6
26	7.8	7.6	7.7	7.7	7.6	7.6	7.7	7.5	7.6	7.6	7.5	7.5
27	7.8	7.6	7.7	7.7	7.6	7.6	7.7	7.5	7.6	7.6	7.5	7.6
28	7.7	7.6	7.6	7.7	7.6	7.6	7.7	7.5	7.6	7.6	7.5	7.6
29	---	---	---	7.7	7.6	7.6	7.7	7.5	7.6	7.7	7.5	7.6
30	---	---	---	---	---	---	7.7	7.5	7.6	7.7	7.5	7.6
31	---	---	---	---	---	---	---	---	---	7.7	7.4	7.5
MONTH	7.8	7.6	7.6	7.8	7.5	7.6	7.7	7.5	7.6	7.7	7.4	7.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.7	7.4	7.5	7.8	7.4	7.5	7.8	7.4	7.6	7.7	7.4	7.5
2	7.7	7.5	7.6	7.8	7.5	7.6	7.9	7.4	7.6	7.7	7.4	7.5
3	7.7	7.4	7.5	7.8	7.5	7.6	7.9	7.4	7.6	7.8	7.4	7.5
4	7.7	7.4	7.5	7.8	7.5	7.6	7.8	7.5	7.7	7.8	7.4	7.5
5	7.7	7.4	7.5	7.8	7.5	7.6	7.8	7.4	7.6	7.8	7.4	7.5
6	7.7	7.4	7.5	7.8	7.5	7.6	7.8	7.4	7.6	7.7	7.4	7.5
7	7.7	7.3	7.5	7.8	7.5	7.6	7.9	7.4	7.6	7.7	7.4	7.5
8	7.7	7.4	7.6	7.8	7.4	7.6	7.8	7.4	7.6	7.7	7.4	7.5
9	7.7	7.4	7.5	7.8	7.5	7.6	7.9	7.4	7.6	7.7	7.4	7.5
10	7.7	7.4	7.5	7.8	7.5	7.6	7.8	7.4	7.6	7.7	7.4	7.5
11	7.6	7.4	7.5	7.8	7.4	7.6	7.8	7.4	7.6	7.8	7.4	7.5
12	7.7	7.4	7.5	7.8	7.4	7.6	7.8	7.4	7.6	---	---	---
13	7.7	7.4	7.5	7.8	7.5	7.6	7.9	7.4	7.6	---	---	---
14	7.7	7.4	7.5	7.8	7.4	7.6	7.9	7.4	7.6	7.8	7.4	7.5
15	7.7	7.4	7.5	7.8	7.4	7.6	7.9	7.4	7.6	7.7	7.4	7.5
16	7.7	7.4	7.5	7.8	7.4	7.6	7.8	7.4	7.6	7.8	7.5	7.6
17	7.6	7.4	7.5	7.8	7.4	7.6	7.8	7.4	7.6	7.7	7.4	7.6
18	7.7	7.4	7.6	7.9	7.4	7.6	7.8	7.3	7.6	7.7	7.4	7.5
19	7.7	7.4	7.6	7.8	7.4	7.6	7.8	7.4	7.6	7.7	7.4	7.5
20	7.7	7.4	7.6	7.8	7.4	7.6	7.7	7.4	7.5	7.7	7.4	7.5
21	7.7	7.4	7.5	7.8	7.4	7.6	7.8	7.4	7.6	7.7	7.4	7.5
22	7.7	7.4	7.5	7.8	7.4	7.6	7.8	7.4	7.6	7.7	7.4	7.5
23	7.7	7.4	7.6	7.8	7.4	7.6	7.8	7.4	7.6	7.6	7.4	7.5
24	7.7	7.4	7.6	7.8	7.4	7.6	7.7	7.4	7.5	7.7	7.4	7.5
25	7.8	7.4	7.6	7.9	7.4	7.6	7.7	7.4	7.5	7.7	7.4	7.5
26	7.8	7.4	7.6	7.8	7.4	7.6	7.8	7.4	7.6	7.6	7.4	7.5
27	7.8	7.4	7.6	7.8	7.4	7.6	7.8	7.4	7.6	7.5	7.3	7.4
28	7.7	7.4	7.6	7.8	7.4	7.6	7.7	7.4	7.5	7.4	7.3	7.4
29	7.8	7.4	7.6	7.8	7.4	7.6	7.7	7.4	7.5	7.5	7.4	7.4
30	7.8	7.4	7.6	7.8	7.4	7.6	7.8	7.4	7.5	7.6	7.4	7.5
31	---	---	---	7.8	7.4	7.6	7.7	7.4	7.5	---	---	---
MONTH	7.8	7.3	7.5	7.9	7.4	7.6	7.9	7.3	7.6	7.8	7.3	7.5

14330000 ROGUE RIVER BELOW PROSPECT, OR--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10.5	8.5	---	---	3.5	2.5	3.0	2.0	---	---	3.5	2.0
2	9.5	8.5	---	---	3.5	2.5	3.0	2.0	---	---	3.0	2.0
3	9.0	7.5	7.5	6.5	3.5	2.5	2.5	2.0	---	---	3.0	2.0
4	8.0	6.5	7.0	6.0	4.5	3.5	3.0	2.5	---	---	4.0	2.5
5	8.5	6.5	6.5	5.5	4.0	3.0	3.0	1.5	---	---	4.5	2.5
6	9.0	7.0	7.0	5.5	3.5	2.5	2.0	1.0	---	---	4.0	3.0
7	9.5	7.5	6.5	5.5	3.0	2.5	2.0	1.0	---	---	4.0	3.5
8	9.5	7.5	7.0	6.0	4.0	3.0	1.5	1.0	---	---	4.0	3.5
9	9.0	7.0	6.5	5.5	4.0	3.0	1.5	1.0	---	---	4.0	2.5
10	8.5	7.0	6.5	6.0	3.5	2.5	---	---	5.0	4.0	4.0	2.0
11	8.5	6.5	7.0	6.0	3.0	2.0	---	---	5.0	3.5	3.0	2.5
12	8.0	6.5	6.5	5.5	3.0	2.5	---	---	5.0	3.5	4.0	3.0
13	8.5	6.0	6.0	5.0	3.0	2.5	---	---	5.0	4.0	3.5	2.5
14	8.0	6.0	6.0	5.5	3.5	2.5	---	---	5.0	3.5	4.0	2.5
15	7.5	5.5	6.5	6.0	3.5	2.5	---	---	5.0	3.5	4.0	3.0
16	7.0	5.5	7.5	6.5	3.0	3.0	---	---	5.0	3.5	5.0	3.0
17	7.0	5.5	7.0	6.5	3.5	2.5	---	---	5.5	4.0	4.5	3.0
18	6.5	5.0	6.5	6.0	3.0	2.0	---	---	5.0	3.5	4.5	2.5
19	6.5	5.0	6.0	4.5	2.5	1.5	---	---	5.0	3.0	5.5	4.0
20	6.5	5.0	5.0	4.0	2.5	1.5	---	---	4.5	4.0	6.5	4.0
21	6.5	5.0	5.5	4.5	2.5	1.5	---	---	4.0	3.5	6.5	4.0
22	7.0	5.5	5.0	4.5	3.0	2.0	---	---	3.5	3.0	5.5	4.0
23	6.5	5.0	5.0	4.0	3.5	3.0	---	---	3.0	2.0	5.5	4.0
24	5.5	5.0	4.5	4.0	3.0	2.0	---	---	3.5	2.0	4.0	3.0
25	6.5	5.5	5.0	4.5	3.0	2.0	---	---	3.5	3.0	5.0	2.5
26	---	---	4.5	3.0	3.5	2.5	---	---	3.5	2.5	6.0	3.0
27	---	---	3.0	2.0	3.5	3.0	---	---	4.5	3.0	5.5	4.0
28	---	---	3.0	2.0	3.0	2.5	---	---	4.5	3.0	4.5	2.5
29	---	---	3.5	2.0	3.5	2.5	---	---	---	---	4.5	2.5
30	---	---	3.5	2.5	3.5	3.0	---	---	---	---	---	---
31	---	---	---	---	3.0	2.5	---	---	---	---	---	---
MONTH	10.5	5.0	7.5	2.0	4.5	1.5	3.0	1.0	5.5	2.0	6.5	2.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	7.5	7.0	12.0	10.0	14.5	12.0	14.5	12.0	12.0	9.5
2	---	---	8.0	6.5	10.5	8.0	14.5	11.5	---	---	12.0	9.5
3	---	---	7.0	6.5	10.0	8.5	13.0	10.5	---	---	13.0	10.0
4	---	---	6.5	5.0	12.5	8.5	12.0	10.0	---	---	13.5	10.5
5	---	---	5.0	4.5	14.0	10.5	11.5	8.5	14.0	11.0	13.0	11.0
6	---	---	6.5	4.5	14.0	11.5	12.5	8.5	14.0	11.0	13.0	10.0
7	---	---	6.5	5.0	14.0	12.0	13.5	9.5	14.0	11.5	12.5	10.0
8	---	---	7.5	5.0	14.5	12.0	14.0	10.5	14.0	10.0	11.5	9.5
9	---	---	7.0	6.0	13.5	11.0	14.0	11.0	14.0	11.0	11.5	8.5
10	---	---	6.5	6.0	13.5	10.5	14.0	10.0	14.5	11.0	11.5	8.5
11	---	---	6.5	5.0	10.5	9.5	14.5	10.5	15.0	11.5	12.0	9.0
12	---	---	7.5	6.0	12.5	9.0	14.5	11.5	15.0	12.0	---	---
13	7.0	5.5	8.5	6.0	13.0	10.0	14.0	10.5	14.5	12.5	---	---
14	6.5	4.0	9.0	7.5	13.5	10.0	14.0	10.5	14.5	12.0	12.0	10.0
15	7.5	5.0	8.0	6.5	13.5	9.5	15.0	11.0	15.0	12.0	10.5	9.0
16	7.5	6.0	6.5	5.0	13.5	10.0	15.5	12.0	15.0	12.0	9.5	8.5
17	6.5	4.5	7.0	5.5	12.0	11.0	15.0	12.0	15.0	12.0	9.0	8.0
18	6.5	4.0	7.0	5.5	13.0	10.0	14.5	12.5	14.0	12.5	9.5	8.5
19	7.0	4.0	9.5	6.0	13.5	10.5	15.0	12.0	14.5	11.0	10.0	9.0
20	7.5	5.0	10.5	7.5	12.0	10.5	15.0	11.5	13.0	11.5	9.5	8.5
21	8.0	6.0	10.5	8.5	13.5	9.5	15.5	12.0	14.0	11.0	9.5	8.0
22	7.5	6.5	9.5	7.5	15.0	10.5	15.5	12.0	13.5	11.0	9.0	7.0
23	7.0	6.0	7.5	6.5	14.5	11.0	15.5	12.0	13.0	10.5	8.0	7.0
24	8.0	6.0	9.0	6.5	14.5	11.0	15.5	12.5	12.5	11.0	9.0	7.0
25	7.5	6.5	8.0	7.5	15.5	11.0	15.0	12.0	12.0	10.5	9.5	8.0
26	8.0	5.5	8.0	7.0	15.0	11.5	14.5	12.0	10.5	9.5	10.0	8.0
27	9.0	6.0	7.5	6.5	15.0	11.5	14.5	11.5	10.5	9.0	9.0	8.5
28	8.0	7.0	9.0	5.5	15.0	11.5	14.0	11.5	10.5	9.5	10.5	8.5
29	8.0	6.5	10.0	7.0	15.5	11.5	13.5	10.5	12.0	9.5	11.5	9.5
30	8.5	7.0	10.5	7.5	15.0	12.0	14.0	10.5	12.5	10.0	13.5	7.5
31	---	---	12.0	8.5	---	---	14.5	11.5	12.0	10.0	---	---
MONTH	9.0	4.0	12.0	4.5	15.5	8.0	15.5	8.5	15.0	9.0	13.5	7.0

14330000 ROGUE RIVER BELOW PROSPECT, OR--Continued

TURBIDITY (JTU), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1							---	---	---	2	0	1
2							---	---	---	3	1	2
3							---	---	---	3	1	2
4							---	---	---	3	1	2
5							---	---	---	2	0	1
6							---	---	---	2	0	1
7							---	---	---	1	0	0
8							---	---	---	2	0	1
9							---	---	---	3	1	2
10							---	---	---	2	1	2
11							---	---	---	---	---	---
12							---	---	---	---	---	---
13							---	---	---	---	---	---
14							---	---	---	---	---	---
15							---	---	---	---	---	---
16							---	---	---	---	---	---
17							---	---	---	---	---	---
18							---	---	---	---	---	---
19							---	---	---	---	---	---
20							---	---	---	---	---	---
21							---	---	---	---	---	---
22							---	---	---	---	---	---
23							---	---	---	---	---	---
24							---	---	---	---	---	---
25							---	---	---	---	---	---
26							---	---	---	---	---	---
27							---	---	---	---	---	---
28							3	1	2	---	---	---
29							3	1	2	---	---	---
30							3	1	2	---	---	---
31							3	1	2	---	---	---
MONTH							3	1	2	3	0	1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	3	0	1	---	---	---	2	1	1
2	---	---	---	2	1	1	---	---	---	5	2	3
3	---	---	---	3	0	1	---	---	---	3	2	2
4	---	---	---	2	0	1	---	---	---	3	1	2
5	---	---	---	2	0	1	---	---	---	2	1	1
6	---	---	---	2	0	1	---	---	---	1	1	1
7	---	---	---	1	0	0	---	---	---	1	1	1
8	---	---	---	3	0	1	---	---	---	1	1	1
9	---	---	---	330	0	20	---	---	---	1	1	1
10	---	---	---	3	0	1	---	---	---	2	1	1
11	---	---	---	8	0	2	---	---	---	1	1	1
12	---	---	---	2	0	1	2	1	1	1	1	1
13	---	---	---	3	1	2	2	1	2	1	1	1
14	---	---	---	3	1	2	1	1	1	1	1	1
15	---	---	---	3	1	2	2	1	1	1	1	1
16	---	---	---	5	3	4	2	1	2	1	1	1
17	---	---	---	4	3	3	2	1	1	1	1	1
18	---	---	---	4	3	3	1	1	1	1	1	1
19	---	---	---	3	3	3	1	1	1	1	1	1
20	3	1	2	5	3	3	1	1	1	1	1	1
21	---	---	---	6	3	4	1	1	1	1	1	1
22	---	---	---	3	3	3	1	1	1	1	1	1
23	---	---	---	2	0	1	1	1	1	2	1	1
24	3	0	1	2	0	0	1	1	1	2	2	2
25	3	1	2	2	0	1	2	1	1	2	1	1
26	3	0	2	2	0	1	2	1	1	3	1	2
27	1	0	0	1	0	0	1	1	1	2	2	2
28	3	0	1	1	0	0	1	1	1	2	1	1
29	---	---	---	2	0	1	1	1	1	2	1	1
30	---	---	---	---	---	---	2	1	1	2	1	1
31	---	---	---	---	---	---	---	---	---	2	1	2
MONTH	3	0	1	330	0	2	2	1	1	5	1	1

14330000 ROGUE RIVER BELOW PROSPECT, OR--Continued

TURBIDITY (JTU), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	2	1	1	3	1	1	1	1	1	1	0	0
2	2	1	1	2	1	1	---	---	---	1	0	1
3	1	1	1	1	1	1	---	---	---	1	0	1
4	2	1	1	1	1	1	---	---	---	1	0	1
5	2	1	1	1	0	1	1	0	1	1	0	1
6	2	1	2	1	1	1	1	0	1	1	0	1
7	2	2	2	1	1	1	1	1	1	1	0	1
8	2	1	2	1	1	1	3	1	1	1	0	1
9	3	1	2	1	1	1	1	0	1	1	0	1
10	2	1	1	1	0	1	1	0	1	1	0	1
11	2	1	2	1	1	1	1	0	0	1	1	1
12	2	1	1	2	1	1	0	0	0	---	---	---
13	2	1	1	1	1	1	0	0	0	---	---	---
14	2	1	1	1	1	1	0	0	0	1	0	1
15	1	1	1	1	1	1	0	0	0	1	0	0
16	1	1	1	1	1	1	1	0	1	0	0	0
17	1	1	1	1	1	1	1	0	1	0	0	0
18	1	1	1	1	0	0	1	1	1	1	0	0
19	1	1	1	1	0	0	1	0	1	1	1	1
20	1	1	1	1	0	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1	1	1	1	0	1
22	1	1	1	1	1	1	1	1	1	1	0	0
23	1	1	1	1	1	1	1	0	1	0	0	0
24	2	1	1	1	1	1	2	1	1	---	---	---
25	1	1	1	1	1	1	1	1	1	---	---	---
26	2	1	1	1	1	1	1	0	1	---	---	---
27	1	1	1	1	1	1	1	0	0	0	0	0
28	2	1	1	1	1	1	1	0	0	4	0	2
29	2	1	1	1	1	1	1	0	0	3	2	3
30	2	1	1	1	1	1	1	0	1	3	0	1
31	---	---	---	1	1	1	1	0	1	---	---	---
MONTH	3	1	1	3	0	0	3	0	0	4	0	0

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	2	5.7	1	3.1	1	2.7	3	7.7	9	23	3	8.5
2	1	3.1	1	2.9	1	2.7	4	11	8	20	3	8.2
3	1	3.0	1	2.8	2	5.4	5	13	5	12	2	5.5
4	1	2.9	1	2.8	2	5.3	8	21	3	7.5	2	5.3
5	1	2.9	1	2.8	2	5.3	18	45	3	7.5	3	8.0
6	1	2.9	1	2.8	2	5.3	8	19	3	7.5	3	8.1
7	2	5.7	1	2.8	2	5.3	11	27	3	7.4	3	8.3
8	2	5.7	2	5.4	2	5.3	10	24	3	7.6	3	9.5
9	1	2.8	1	2.6	3	8.3	5	12	4	10	3	9.5
10	1	2.8	1	2.8	3	8.2	3	8.1	3	7.5	2	5.9
11	1	2.8	1	2.8	2	5.5	3	8.3	1	2.5	2	5.7
12	1	2.9	1	2.8	10	27	3	7.9	1	2.5	2	5.8
13	8	22	2	5.5	1	2.7	2	5.2	2	5.1	2	5.6
14	2	5.7	2	5.9	1	2.7	2	5.2	2	5.1	2	5.5
15	2	5.6	2	6.2	2	5.3	2	5.1	3	7.6	2	5.4
16	2	5.6	2	6.1	2	5.3	4	10	4	10	2	5.3
17	1	2.8	1	2.9	3	7.9	3	7.7	6	15	1	2.7
18	1	2.8	1	2.8	7	18	4	10	4	10	1	2.7
19	1	2.8	1	2.8	7	18	4	10	2	5.0	1	2.7
20	2	5.6	1	2.8	2	5.1	32	83	2	5.0	1	2.8
21	2	5.6	1	2.8	2	5.2	32	83	2	5.4	2	5.5
22	2	5.6	1	2.8	2	5.2	30	78	2	5.3	3	8.5
23	1	2.8	1	2.8	1	2.6	30	77	2	5.2	2	6.2
24	1	2.8	1	2.7	1	2.6	9	23	3	7.7	2	6.0
25	1	3.1	1	2.7	1	2.6	9	23	2	5.0	2	5.8
26	2	5.8	1	2.7	1	2.7	5	13	2	5.1	2	5.7
27	2	5.7	1	2.7	1	2.6	5	12	3	7.8	2	6.0
28	2	5.7	1	2.7	1	2.6	14	35	3	9.2	1	3.0
29	2	5.7	0	.00	1	2.6	12	30	---	---	2	5.7
30	1	2.8	1	2.7	2	5.2	11	28	---	---	3	8.4
31	1	2.8	---	---	2	5.1	10	25	---	---	3	8.3
TOTAL	---	144.5	---	96.00	---	190.3	---	767.2	---	228.5	---	190.1

14330000 ROGUE RIVER BELOW PROSPECT, OR--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3	8.5	4	14	2	7.5	3	7.7	2	4.4	1	2.1
2	3	8.5	6	24	2	7.2	3	7.9	2	4.2	1	2.1
3	4	11	4	16	1	3.5	3	7.4	2	4.0	1	2.1
4	5	15	4	16	1	3.5	3	7.4	2	4.0	1	2.1
5	6	20	3	12	2	6.9	2	4.9	2	4.2	1	2.1
6	6	21	3	11	2	7.0	2	5.0	2	4.3	1	2.1
7	7	26	2	7.3	2	7.0	2	4.9	3	6.6	1	2.1
8	8	34	2	7.1	3	10	2	4.9	3	6.5	1	2.1
9	8	31	2	7.1	4	13	1	2.4	3	6.5	1	2.1
10	4	14	2	7.6	4	13	1	2.4	3	6.4	1	2.1
11	4	14	3	12	4	14	2	4.8	2	4.3	1	2.0
12	4	14	2	7.5	3	9.5	2	4.8	2	4.2	2	3.9
13	3	11	2	7.2	2	6.2	3	7.1	1	2.1	2	4.1
14	4	14	2	7.2	2	6.0	3	7.1	1	2.1	2	4.1
15	4	14	2	7.1	2	5.8	2	4.7	2	4.2	2	4.0
16	3	11	1	3.6	2	5.7	2	4.7	2	4.2	1	2.1
17	2	7.1	1	3.6	2	5.7	1	2.3	2	4.2	2	4.2
18	1	3.4	2	7.2	2	5.7	1	2.3	2	4.2	2	4.3
19	1	3.3	2	7.1	3	8.5	1	2.3	1	2.1	2	4.3
20	1	3.2	2	7.2	3	8.4	1	2.3	1	2.1	2	4.5
21	2	6.5	2	7.3	2	5.6	2	4.5	1	2.1	2	4.3
22	2	6.8	2	7.5	3	8.3	3	6.9	1	2.1	1	2.1
23	2	6.7	4	16	3	8.1	2	4.6	2	4.1	1	2.1
24	2	6.9	3	12	3	8.0	2	4.5	2	4.6	2	5.0
25	3	11	3	11	2	5.3	3	6.8	1	2.4	3	6.6
26	4	14	4	16	2	5.2	3	6.8	1	2.4	2	4.5
27	3	11	3	12	2	5.2	2	4.5	1	2.3	2	4.3
28	3	10	2	7.5	2	5.1	2	4.5	1	2.2	3	9.8
29	2	6.9	2	7.3	2	5.1	2	4.5	1	2.2	3	11
30	3	10	2	7.2	2	5.0	2	4.4	1	2.2	4	10
31	---	---	2	7.2	---	---	2	4.4	1	2.2	---	---
TOTAL	---	373.8	---	302.8	---	215.0	---	153.7	---	113.6	---	118.2

TOTAL LOAD FOR YEAR: 2893.70 TONS.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
DEC				
17...	2400	964	3	56
18...	1200	952	8	42
18...	2400	952	6	35
19...	1200	940	7	43
JAN				
01...	1200	958	4	0
03...	2400	964	6	28
05...	1200	964	26	6
06...	2400	929	6	15
07...	1200	820	10	36
07...	2400	970	13	28
08...	1200	874	10	45
12...	1200	1010	3	100
16...	1200	929	4	64
JAN				
17...	1200	946	3	45
18...	1200	970	6	36
19...	1200	1010	4	50
22...	1200	970	16	50
23...	1200	964	43	29
29...	1200	918	11	64
30...	1200	907	11	32
31...	1200	934	10	65
FEB				
03...	1200	918	8	48
03...	1310	918	1	60
03...	2400	918	0	100

14332001 SOUTH FORK ROGUE RIVER NEAR PROSPECT, OR

LOCATION.--Lat 42°42'30", long 122°23'30", in SE¼SW¼ sec.7, T.33 S., R.4 E., Jackson County, Hydrologic Unit 17100307, in Rogue River National Forest on left bank 0.3 mi (0.5 km) downstream from South Fork dam and intake of South Fork power canal, 0.31 mi (0.50 km) downstream from Imnaha Creek, 5.6 mi (9.0 km) southeast of Prospect, and at mile 10.2 (16.4 km).

DRAINAGE AREA.--83.8 mi^2 (217 km^2). Area at site above Imnaha Creek used October 1931 to September 1949, 61.3 mi^2 (158.8 km^2), and Imnaha Creek near Prospect, 22.2 mi^2 (57.5 km^2).

PERIOD OF RECORD.--April 1924 to September 1931, October 1949 to current year. Equivalent records for period October 1931 to September 1949 may be obtained from combined flow of South Fork Rogue River above Imnaha Creek, near Prospect and Imnaha Creek near Prospect.

REVISED RECORDS.--WSP 1318: 1925(M), 1927(M), 1930(M). WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 3,300 ft (1,006 m), from topographic map. Prior to Sept. 10, 1965, at site 1,000 ft (305 m) upstream at different datum.

REMARKS.--Records good. All records given herein include flow in South Fork power canal (completed in March 1932) which diverts 1,500 ft (457 m) above station and returns water to Rogue River above South Fork Rogue River; practically no storage above diversion dam.

AVERAGE DISCHARGE.--53 years (water years 1925-77), 179 ft^3/s (5.069 m^3/s), 129,700 acre-ft/yr (160 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 7,010 ft^3/s (199 m^3/s) Dec. 22, 1964, gage height, 11.1 ft (3.38 m), from floodmark, from rating curve extended above 410 ft^3/s (11.6 m^3/s) on basis of measurement of flow over dam of 3,180 ft^3/s (90.1 m^3/s); no flow Jan. 31, 1950, Sept. 29, 30, 1967 (entire flow diverted to canal).

Combined flow, maximum discharge, 7,010 ft^3/s (199 m^3/s) Dec. 22, 1964 (no flow in canal); minimum daily, about 38 ft^3/s (1.08 m^3/s) Aug. 1-31, 1931.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 133 ft^3/s (3.77 m^3/s) May 26, gage height, 2.34 ft (0.713 m); minimum daily, 0.60 ft^3/s (0.017 m^3/s) Aug. 29.

Combined flow, maximum discharge, 274 ft^3/s (7.76 m^3/s) May 26; minimum daily, 57 ft^3/s (1.61 m^3/s) Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	93	77	70	68	72	76	150	219	97	68	63
2	98	88	75	76	69	72	76	176	204	100	78	62
3	105	88	76	70	66	72	75	191	191	94	62	62
4	102	87	77	73	65	68	80	167	194	91	61	61
5	95	88	77	70	67	72	84	155	209	90	72	61
6	96	82	74	69	70	74	94	144	219	86	65	58
7	96	84	75	70	67	76	100	144	210	87	64	60
8	93	82	74	69	69	84	122	140	202	88	72	60
9	96	84	77	72	69	82	122	131	183	84	66	60
10	94	80	74	71	69	76	104	187	164	82	64	60
11	91	83	76	72	67	78	104	178	169	81	64	58
12	96	81	75	72	69	79	102	171	157	81	64	58
13	91	81	75	73	70	76	118	159	160	80	64	60
14	91	95	74	66	68	74	118	162	153	79	62	58
15	91	86	73	74	68	73	117	166	136	78	62	57
16	91	87	72	69	69	73	125	159	128	77	62	61
17	89	85	73	70	67	72	142	157	126	76	61	60
18	90	84	74	70	67	72	120	155	121	76	62	61
19	89	83	72	71	67	72	119	150	124	76	62	66
20	88	81	70	72	68	67	118	155	119	76	62	68
21	87	81	71	69	69	73	120	169	127	73	62	61
22	87	80	72	69	69	74	125	182	105	74	61	63
23	89	79	73	70	70	79	123	204	107	73	60	60
24	89	80	71	69	67	78	124	200	106	71	71	86
25	105	80	72	69	67	74	144	188	105	71	69	62
26	88	76	74	66	68	74	139	228	103	70	63	61
27	90	76	75	70	69	79	138	231	101	69	65	63
28	91	79	72	69	81	76	141	201	97	69	64	148
29	90	77	70	66	---	75	139	193	99	68	65	162
30	90	77	71	69	---	74	134	189	96	68	62	59
31	93	---	72	69	---	73	---	199	---	68	61	---
TOTAL	2865	2487	2283	2174	1919	2313	3443	5381	4434	2453	2000	2039
MEAN	92.4	82.9	73.6	70.1	68.5	74.6	115	174	148	79.1	64.5	68.0
MAX	105	95	77	76	81	84	144	231	219	100	78	162
MIN	84	76	70	66	65	67	75	131	96	68	60	57
AC-FT	5680	4930	4530	4310	3810	4590	6830	10670	8790	4870	3970	4040

CAL YR 1976 TOTAL 65597 MEAN 179 MAX 573 MIN 62 AC-FT 130100
WTR YR 1977 TOTAL 33791 MEAN 92.6 MAX 231 MIN 57 AC-FT 67020

14333500 RED BLANKET CREEK NEAR PROSPECT, OR

LOCATION.--Lat 42°46'40", long 122°25'35", in NW¼NE¼ sec.23, T.32 S., R.3 E., Jackson County, Hydrologic Unit 17100307, on right bank 1.8 mi (2.9 km) downstream from Lick Creek, 3.7 mi (6.0 km) northeast of Prospect, and at mile 4.8 (7.7 km).

DRAINAGE AREA.--45.5 mi^2 (117.8 km^2).

PERIOD OF RECORD.--May 1925 to current year.

REVISED RECORDS.--WSP 1318: 1926-28, 1930. WSP 1348: 1943(M), 1948(M), 1953. WSP 1738: 1927(M), drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,780 ft (847 m), from river-profile map. Prior to Sept. 7, 1949, nonrecording gage at several sites within 2.5 mi (4.0 km) of present site at various datums.

REMARKS.--Records good. No regulation. Small diversion above station for irrigation below.

AVERAGE DISCHARGE.--52 years, 117 ft^3/s (3.313 m^3/s), 84,770 acre-ft/yr (105 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,190 ft^3/s (90.3 m^3/s) Dec. 22, 1964, gage height, 7.85 ft (2.393 m), from rating curve extended above 1,500 ft^3/s (42.5 m^3/s); minimum observed, 34 ft^3/s (0.96 m^3/s) Sept. 3, 4, 25, Oct. 9, 16, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 185 ft^3/s (5.24 m^3/s) Sept. 28, gage height, 3.02 ft (0.920 m), no peak above base of 300 ft^3/s (8.50 m^3/s); minimum, 41 ft^3/s (1.16 m^3/s) Sept. 12-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	82	72	68	63	74	74	84	113	68	51	45
2	90	76	72	74	63	70	68	90	108	63	49	45
3	76	76	74	70	63	70	70	105	105	63	49	45
4	74	76	74	68	63	68	74	98	105	62	49	45
5	74	74	72	68	65	68	80	95	108	62	49	45
6	72	74	72	78	65	68	84	90	110	60	49	44
7	72	74	72	66	65	74	90	86	110	60	51	44
8	74	74	74	68	65	86	103	82	105	58	51	44
9	74	74	74	66	65	86	95	84	98	58	49	44
10	72	74	72	66	65	78	88	105	95	58	49	44
11	72	72	72	66	65	76	84	100	113	58	48	44
12	72	72	72	68	65	76	84	95	95	58	48	44
13	72	74	72	68	65	72	88	93	93	58	48	44
14	72	84	70	66	63	70	86	95	93	58	48	44
15	72	84	70	66	63	68	84	93	86	57	48	44
16	72	82	70	66	63	66	90	95	84	57	46	45
17	74	78	70	66	63	66	88	93	82	57	45	46
18	74	76	70	66	63	66	82	88	80	57	45	49
19	74	76	68	66	63	72	78	86	74	57	45	51
20	74	74	68	66	66	70	78	90	74	55	45	54
21	74	74	68	66	70	70	78	98	72	55	46	46
22	74	74	68	66	68	74	76	103	70	55	45	45
23	74	72	68	66	66	80	72	116	66	55	45	52
24	78	74	68	66	66	76	72	110	66	54	57	65
25	90	74	70	65	65	74	78	103	66	54	52	52
26	80	74	72	65	66	74	76	134	65	54	52	51
27	76	72	70	65	72	78	74	128	63	54	48	54
28	76	72	68	65	84	74	76	116	63	54	49	143
29	76	72	68	63	---	72	76	110	62	54	48	108
30	76	72	68	63	---	70	76	108	62	52	48	74
31	78	---	68	65	---	70	---	110	---	52	46	---
TOTAL	2334	2256	2186	2071	1838	2256	2422	3083	2586	1777	1498	1600
MEAN	75.3	75.2	70.5	66.8	65.6	72.8	80.7	99.5	86.2	57.3	48.3	53.3
MAX	90	84	74	78	84	86	103	134	113	68	57	143
MIN	72	72	68	63	63	66	68	82	62	52	45	44
AC-FT	4630	4470	4340	4110	3650	4470	4800	6120	5130	3520	2970	3170

CAL YR 1976 TOTAL 43852 MEAN 120 MAX 283 MIN 68 AC-FT 86980
WTR YR 1977 TOTAL 25907 MEAN 71.0 MAX 143 MIN 44 AC-FT 51390

14334700 SOUTH FORK ROGUE RIVER, SOUTH OF PROSPECT, OR

LOCATION.--Lat 42°42'45", long 122°30'20", in NW¼SE¼ sec.7, T.33 S., R.3 E., Jackson County, Hydrologic Unit 17100307, on right bank 200 ft (61 m) upstream from unnamed tributary, 0.6 mi (1.0 km) upstream from Smith Creek, 1.2 mi (1.9 km) downstream from Beaver Creek, 2.8 mi (4.5 km) southwest of Prospect, and at mile 2.4 (3.9 km).

DRAINAGE AREA.--246 mi² (637 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,030 ft (619 m), from topographic map.

REMARKS.--Water-discharge records good. Some regulation by South Fork canal dam upstream. Power diversions above station from South Fork Rogue River, Middle Fork Rogue River, and Red Blanket Creek divert water to Rogue River via Main Canal. During summer base flow all of streamflow is diverted for power except that for fish life. Base flow at station is principally from springs downstream from power diversions.

AVERAGE DISCHARGE.--9 years, 414 ft³/s (11.72 m³/s), 299,900 acre-ft/yr (370 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,880 ft³/s (280 m³/s) Mar. 3, 1972, gage height, 12.71 ft (3.874 m), from floodmark; minimum, 54 ft³/s (1.53 m³/s) Aug. 16-19, 1977; minimum daily, 54 ft³/s (1.53 m³/s) Sept. 24-30, 1970.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1890, 20.1 ft (6.13 m), Dec. 22, 1964, from floodmarks at gage, discharge, 28,500 ft³/s (807 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 648 ft³/s (18.4 m³/s) Sept. 29, gage height, 5.29 ft (1.612 m); minimum, 54 ft³/s (1.53 m³/s) Aug. 16-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	122	90	83	82	111	93	180	369	88	57	62
2	209	108	89	99	81	101	96	232	346	93	81	60
3	140	105	88	93	80	104	95	277	320	99	126	59
4	131	104	89	88	81	98	99	242	317	98	125	60
5	128	101	88	85	77	95	108	220	359	93	103	59
6	123	101	88	85	69	93	112	188	389	77	57	59
7	116	100	87	87	77	93	118	175	376	75	59	59
8	115	101	90	90	79	116	151	166	333	73	58	58
9	115	103	93	93	77	142	162	173	274	72	59	58
10	115	104	89	88	76	119	135	242	227	71	57	58
11	114	100	88	87	76	111	104	234	286	71	56	59
12	111	98	87	89	76	115	103	220	227	71	57	58
13	109	97	89	88	76	107	128	211	213	69	57	59
14	109	97	84	85	75	100	143	209	196	68	56	58
15	104	97	84	84	75	95	142	232	166	67	56	58
16	103	96	84	83	75	91	151	213	155	66	56	59
17	103	96	84	83	75	85	148	209	128	65	55	60
18	101	96	84	83	74	84	140	203	119	65	55	65
19	103	96	83	84	77	88	137	192	122	66	55	69
20	101	96	83	84	80	88	135	198	125	70	56	69
21	103	96	84	84	90	85	147	225	118	84	57	65
22	103	96	84	84	89	93	145	269	109	62	57	63
23	103	96	84	84	87	104	143	346	103	60	57	65
24	109	96	83	83	84	104	140	336	96	60	72	96
25	135	94	84	82	83	98	160	298	93	61	67	68
26	123	94	89	80	87	94	160	421	90	61	62	65
27	114	94	87	81	90	99	150	443	87	59	60	66
28	109	94	84	81	115	96	157	349	83	59	61	336
29	105	93	84	81	---	94	153	320	81	59	68	362
30	107	91	84	81	---	91	151	298	80	57	64	132
31	115	---	83	82	---	88	---	311	---	57	64	---
TOTAL	3595	2962	2671	2644	2263	3082	4006	7832	5987	2196	2030	2524
MEAN	116	98.7	86.2	85.3	80.8	99.4	134	253	200	70.8	65.5	84.1
MAX	209	122	93	99	115	142	162	443	389	99	126	362
MIN	101	91	83	80	69	84	93	166	80	57	55	58
AC-FT	7130	5880	5300	5240	4490	6110	7950	15530	11880	4360	4030	5010

CAL YR 1976 TOTAL 134495 MEAN 367 MAX 1460 MIN 83 AC-FT 266800
WTR YR 1977 TOTAL 41792 MEAN 114 MAX 443 MIN 55 AC-FT 82890

14334700 SOUTH FORK ROGUE RIVER SOUTH OF PROSPECT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1968 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 18.5°C July 25, 26, 1976; minimum, 0.0°C Feb. 5, 1976.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 18.0°C Aug. 2; minimum, 0.5°C Jan. 9.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	9.5	8.5	4.5	3.0	4.0	2.5	5.0	3.5	5.5	4.0
2	---	---	9.0	7.5	4.5	3.5	4.0	3.5	4.0	2.5	5.0	4.0
3	---	---	8.5	7.0	4.0	3.0	4.0	3.0	3.5	2.5	5.5	3.5
4	---	---	8.0	6.5	3.5	3.0	4.5	4.0	4.0	3.0	6.0	4.5
5	---	---	8.0	6.0	4.0	3.0	4.5	2.0	5.0	3.5	6.0	4.0
6	---	---	8.0	7.0	5.0	3.5	2.0	1.5	5.0	4.0	6.5	4.5
7	---	---	8.5	6.5	5.0	4.5	2.0	1.5	5.5	4.0	6.5	5.5
8	---	---	8.5	7.0	4.5	3.0	1.5	1.0	6.0	5.0	6.5	5.0
9	---	---	8.0	6.5	4.0	3.0	2.0	0.5	6.0	5.0	5.0	4.0
10	---	---	8.5	7.0	4.0	3.0	4.0	1.5	6.0	5.0	5.5	3.5
11	---	---	8.0	6.5	4.0	3.5	4.0	3.5	6.0	4.5	6.0	4.0
12	---	---	8.0	6.5	4.5	3.0	4.5	4.0	6.0	4.5	5.5	5.0
13	---	---	7.5	5.5	4.5	3.5	5.0	4.0	6.0	5.0	5.0	4.0
14	9.0	---	8.0	6.5	4.5	3.5	4.5	3.5	6.0	4.5	5.5	4.0
15	8.5	6.0	9.0	7.5	4.0	3.0	3.5	3.0	6.0	4.5	5.5	4.0
16	8.5	6.0	8.5	7.5	3.5	2.5	3.5	2.5	6.5	4.5	6.0	4.0
17	8.0	6.0	8.5	7.0	3.0	2.0	4.0	3.0	6.5	5.5	6.0	4.5
18	7.5	5.5	8.5	8.0	3.0	2.0	4.5	3.0	6.0	4.0	6.0	5.0
19	7.5	5.5	7.5	5.5	---	2.0	4.5	3.5	5.5	4.0	7.5	5.5
20	8.0	5.5	6.0	4.5	---	---	4.5	3.0	6.5	5.5	7.5	5.5
21	8.0	5.5	7.0	5.5	3.5	---	5.0	4.0	6.0	5.0	7.5	5.0
22	8.0	6.0	6.5	4.5	4.0	3.0	5.0	4.5	6.0	5.0	8.5	5.0
23	7.5	6.0	6.5	5.5	4.5	4.0	4.5	3.5	5.5	4.5	8.5	6.0
24	7.5	6.0	6.0	4.0	3.5	2.5	4.0	3.0	5.5	4.0	6.0	5.0
25	8.0	7.0	4.0	2.5	4.5	3.0	3.0	2.5	5.5	5.0	6.5	3.5
26	7.5	6.0	3.5	2.0	4.5	3.5	3.0	2.0	6.5	4.5	8.0	4.5
27	7.0	5.0	4.0	2.5	4.5	3.5	3.0	2.0	7.0	5.5	7.5	6.0
28	7.0	5.0	4.0	3.0	3.5	2.5	3.0	2.0	7.0	4.5	6.5	4.5
29	8.0	7.0	4.0	3.0	4.5	3.5	3.0	2.0	---	---	6.0	4.5
30	8.5	7.0	4.0	3.0	4.5	4.0	4.0	2.0	---	---	7.0	4.5
31	9.0	7.5	---	---	4.0	3.0	5.0	4.0	---	---	6.5	5.0
MONTH	9.0	5.0	9.5	2.0	5.0	2.0	5.0	0.5	7.0	2.5	8.5	3.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	5.5	9.0	7.0	12.5	8.5	16.5	13.5	16.0	13.5	13.0	10.0
2	8.0	5.5	9.0	6.5	11.5	6.0	16.5	12.5	18.0	14.5	13.0	10.5
3	9.0	5.5	7.5	5.5	10.5	7.5	15.0	11.0	17.0	13.5	13.5	11.0
4	10.0	6.0	7.5	5.0	14.5	8.5	14.0	11.0	16.5	13.0	14.0	11.5
5	10.0	6.0	6.5	4.5	15.5	9.0	13.0	9.0	16.0	12.0	14.5	12.0
6	10.0	6.0	9.0	4.5	14.5	10.0	14.5	10.0	16.0	12.5	13.5	11.0
7	11.0	6.0	8.0	5.5	14.5	10.5	15.5	11.5	16.5	13.5	13.5	11.0
8	10.5	7.0	10.0	4.5	15.0	10.5	16.0	12.5	16.0	13.0	12.5	10.0
9	7.0	5.5	8.0	6.0	13.5	9.5	15.5	12.0	16.0	13.0	11.5	9.0
10	8.5	4.0	7.5	6.0	12.5	10.0	15.0	11.0	16.0	13.0	12.5	9.5
11	10.0	6.0	9.0	5.5	12.0	9.5	16.0	12.0	16.5	13.0	12.5	10.0
12	10.5	6.0	9.0	6.5	15.0	8.5	16.5	13.0	16.0	13.0	12.5	10.0
13	10.0	7.5	11.0	5.5	14.5	9.5	15.5	11.5	16.0	13.5	12.5	10.0
14	9.5	4.5	10.0	7.0	15.5	9.5	16.0	12.0	16.0	13.0	12.5	11.0
15	10.0	5.5	9.0	6.0	15.0	9.0	17.0	13.0	16.0	13.0	12.0	10.0
16	10.5	7.0	8.5	5.5	15.5	9.5	17.0	13.5	16.0	13.0	10.5	9.5
17	9.0	4.5	9.0	5.5	13.5	11.0	16.5	13.0	16.0	13.0	10.5	9.5
18	9.0	4.0	8.0	5.0	15.5	11.0	16.0	13.5	16.0	13.5	11.5	10.0
19	9.5	4.5	12.0	6.0	16.5	11.5	17.0	13.5	15.5	12.5	11.5	10.5
20	10.0	5.0	13.0	7.0	14.5	11.5	17.5	13.5	15.0	12.5	11.5	10.0
21	10.5	6.5	12.5	8.0	16.5	10.5	17.0	13.0	15.5	12.5	11.0	9.5
22	9.5	6.5	9.5	7.0	17.5	12.0	17.0	13.0	14.5	12.0	10.0	7.5
23	9.0	6.5	9.0	6.5	17.0	12.0	17.5	13.5	14.5	11.5	9.5	8.5
24	10.5	6.5	10.5	6.5	17.0	12.0	17.0	14.0	15.0	13.0	10.5	9.0
25	9.5	7.0	9.0	6.0	17.5	12.5	16.5	13.5	13.5	11.5	11.0	9.5
26	11.0	6.0	8.5	6.5	17.5	13.0	17.0	13.5	13.0	11.0	11.0	9.5
27	11.5	5.5	9.0	5.0	17.0	13.0	16.5	13.0	12.5	10.5	11.0	10.0
28	9.5	6.5	11.0	5.5	17.0	12.5	16.0	13.0	13.5	11.5	10.5	10.0
29	10.0	7.0	12.0	6.0	17.0	13.0	15.5	12.0	14.0	11.5	11.0	9.0
30	10.5	7.0	12.0	6.5	17.0	13.5	16.0	12.0	14.5	12.5	9.5	7.0
31	---	---	14.0	8.0	---	---	16.5	13.0	13.5	11.0	---	---
MONTH	11.5	4.0	14.0	4.5	17.5	6.0	17.5	9.0	18.0	10.5	14.5	7.0

14334700 SOUTH FORK ROGUE RIVER SOUTH OF PROSPECT, OR--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	3	0.96	2	0.66	0	.00	1	0.22	2	0.44	4	1.2
2	3	1.7	2	0.58	0	.00	1	0.27	2	0.44	1	0.27
3	3	1.1	2	0.57	0	.00	1	0.25	2	0.43	1	0.28
4	3	1.1	2	0.56	0	.00	1	0.24	2	0.44	1	0.26
5	3	1.0	2	0.55	0	.00	1	0.23	2	0.42	1	0.26
6	3	1.0	2	0.55	0	.00	1	0.23	2	0.37	4	1.0
7	3	0.94	2	0.54	0	.00	1	0.23	2	0.42	4	1.0
8	3	0.93	2	0.55	0	.00	1	0.24	2	0.43	5	1.6
9	3	0.93	2	0.56	0	.00	1	0.25	2	0.42	5	1.9
10	3	0.93	2	0.56	0	.00	1	0.24	1	0.21	3	0.96
11	3	0.92	2	0.54	0	.00	1	0.23	1	0.21	3	0.90
12	3	0.90	2	0.53	0	.00	1	0.24	1	0.21	2	0.62
13	3	0.88	2	0.52	0	.00	1	0.24	3	0.62	3	0.87
14	3	0.88	2	0.52	0	.00	1	0.23	3	0.61	2	0.54
15	3	0.84	2	0.52	0	.00	1	0.23	3	0.61	2	0.51
16	3	0.83	1	0.26	0	.00	1	0.22	3	0.61	1	0.25
17	3	0.83	1	0.26	0	.00	1	0.22	4	0.81	1	0.23
18	3	0.82	1	0.26	0	.00	1	0.22	3	0.60	1	0.23
19	3	0.83	1	0.26	0	.00	1	0.23	3	0.62	1	0.24
20	3	0.82	1	0.26	0	.00	1	0.23	3	0.65	1	0.24
21	3	0.83	1	0.26	0	.00	1	0.23	3	0.73	1	0.23
22	3	0.83	0	.00	0	.00	1	0.23	2	0.48	1	0.25
23	3	0.83	0	.00	0	.00	1	0.23	2	0.47	1	0.28
24	3	0.88	0	.00	0	.00	1	0.22	2	0.45	1	0.28
25	3	1.1	0	.00	0	.00	1	0.22	2	0.45	1	0.26
26	3	1.0	0	.00	0	.00	1	0.22	2	0.47	1	0.25
27	3	0.92	0	.00	0	.00	1	0.22	1	0.24	1	0.27
28	2	0.59	0	.00	1	0.23	1	0.22	3	0.93	1	0.26
29	2	0.57	0	.00	1	0.23	1	0.22	---	---	1	0.25
30	2	0.58	0	.00	1	0.23	1	0.22	---	---	1	0.25
31	2	0.62	---	---	1	0.22	1	0.22	---	---	1	0.24
TOTAL	---	27.89	---	9.87	---	0.91	---	7.14	---	13.79	---	16.18
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1	0.25	13	6.3	5	5.0	1	0.24	2	0.31	5	0.84
2	1	0.26	10	6.3	3	2.8	1	0.25	2	0.44	4	0.65
3	1	0.26	10	7.5	2	1.7	1	0.27	6	2.0	3	0.48
4	1	0.27	7	4.6	2	1.7	1	0.26	5	1.7	3	0.49
5	1	0.29	5	3.0	2	1.9	1	0.25	5	1.4	2	0.32
6	1	0.30	4	2.0	2	2.1	0	.00	5	0.77	2	0.32
7	2	0.64	4	1.9	2	2.0	0	.00	5	0.80	2	0.32
8	4	1.6	5	2.2	2	1.8	0	.00	4	0.63	2	0.31
9	5	2.2	5	2.3	3	2.2	0	.00	3	0.48	2	0.31
10	7	2.6	5	3.3	4	2.5	0	.00	3	0.46	2	0.31
11	10	2.8	5	3.2	6	4.6	0	.00	3	0.45	2	0.32
12	10	2.8	5	3.0	5	3.1	0	.00	3	0.46	2	0.31
13	11	3.8	4	2.3	4	2.3	0	.00	3	0.46	2	0.32
14	8	3.1	4	2.3	4	2.1	1	0.18	3	0.45	2	0.31
15	3	1.2	4	2.5	3	1.3	1	0.18	3	0.45	2	0.31
16	4	1.6	4	2.3	3	1.3	1	0.18	3	0.45	2	0.32
17	4	1.6	3	1.7	3	1.0	1	0.18	3	0.45	2	0.32
18	4	1.5	3	1.6	3	0.96	1	0.18	3	0.45	3	0.53
19	2	0.74	4	2.1	3	0.99	1	0.18	3	0.45	4	0.75
20	2	0.73	4	2.1	3	1.0	1	0.19	4	0.60	5	0.93
21	2	0.79	5	3.0	2	0.64	1	0.23	5	0.77	5	0.88
22	2	0.78	7	5.1	2	0.59	1	0.17	3	0.46	5	0.85
23	2	0.77	10	9.3	2	0.56	1	0.16	3	0.46	5	0.88
24	3	1.1	10	9.1	2	0.52	1	0.16	4	0.78	5	1.3
25	4	1.7	10	8.0	2	0.50	2	0.33	5	0.90	5	0.92
26	4	1.7	10	11	2	0.49	2	0.33	4	0.67	4	0.70
27	2	0.81	7	8.4	2	0.47	2	0.32	4	0.65	5	0.89
28	3	1.3	7	6.6	2	0.45	2	0.32	10	1.6	69	87
29	4	1.7	5	4.3	2	0.44	2	0.32	12	2.2	20	20
30	9	3.7	5	4.0	2	0.43	2	0.31	13	2.2	5	1.8
31	---	---	5	4.2	---	---	2	0.31	14	2.4	---	---
TOTAL	---	42.89	---	135.5	---	47.44	---	5.50	---	26.75	---	123.99

TOTAL LOAD FOR YEAR: 457.85 TONS.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT				
14...	1315	112	3	45
FEB				
01...	1200	82	16	39
09...	1430	79	8	56
13...	1200	76	16	30
14...	1200	75	68	16
15...	1200	75	14	29
17...	1200	75	23	39
18...	1200	74	15	45
19...	1200	78	15	41
FEB				
20...	1200	76	14	40
21...	1200	89	14	42
22...	1200	88	12	35
23...	1135	84	14	40
23...	1145	84	12	32
23...	1223	84	9	47
MAR				
09...	1240	144	17	52
09...	1246	145	5	97

DATE	TIME	DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
FEB				
25...	1200	84	3	47
26...	1200	87	2	58
27...	1200	90	3	44
28...	1200	115	13	57
MAR				
01...	1200	111	6	59
02...	1200	101	4	41
03...	1200	104	4	44
04...	1200	98	2	56
05...	1200	95	3	65
06...	1200	93	13	30
07...	1200	93	14	40
08...	1200	116	19	30
09...	1200	142	17	51
10...	1200	119	9	55
MAR				
11...	1200	111	11	34
12...	1200	115	8	38
13...	1200	107	9	29
14...	1200	100	7	42
15...	1200	95	7	41
16...	1200	91	5	41
19...	1200	88	4	34
23...	1200	10	4	27
APR				
09...	1200	162	16	25
10...	1200	135	16	25
11...	1200	104	26	14
12...	1200	103	25	19
13...	1200	128	30	30

14335040 LOST CREEK LAKE NEAR MCLEOD, OR

LOCATION.--Lat 42°40'16", long 122°40'25", in SW¼ sec.26, T.33 S., R.1 E., Jackson County, Hydrologic Unit 17100307, in outlet structure of Lost Creek Dam on Rogue River, 1.0 mi (1.6 km) northeast of McLeod and at mile 157.2 (252.9 km).

DRAINAGE AREA.--674 mi^2 (1,746 km^2).

PERIOD OF RECORD.--February to September 1977.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam completed in October 1976. Storage began in February 1977. Total capacity, 465,000 acre-ft (573 hm^3) between elevations 1,551.0 ft (472.74 m) and 1,872.0 ft (570.59 m), maximum pool elevation. Elevation of gated spillway crest, 1,823.0 ft (555.65 m). Usable storage, 315,000 acre-ft (388 hm^3) between elevation 1,751.0 ft (533.70 m) and 1,872.0 ft (570.59 m). Water is used for flood control, recreation, power generation, pollution abatement, domestic use and other purposes.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 152,300 acre-ft (188 hm^3) June 24, elevation, 1,752.28 ft (534.095 m); minimum observed, 1,680 acre-ft (2.07 hm^3) Feb. 18, elevation, 1,585.40 ft (483.230 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

1,585.4	1,680	1,660.0	35,180	1,800.0	254,600
1,600.0	4,040	1,700.0	74,180	1,850.0	393,100
1,630.0	15,250	1,750.0	148,200	1,872.0	465,000

ELEVATION, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	1619.60	1655.60	1700.00	1741.10	1751.85	1745.70	1737.30
2					---	1621.40	1656.80	1701.60	1742.30	1751.84	1745.44	1737.00
3					---	1623.20	1657.90	1703.40	1743.40	1751.75	1745.17	1736.70
4					---	1624.70	1659.20	1705.00	1744.40	1751.67	1744.87	1764.40
5					---	1625.90	1660.80	1706.90	1745.40	1751.58	1744.58	1736.10
6					---	1627.30	1662.50	1708.20	1746.43	1751.46	1744.32	1735.80
7					---	1628.70	1664.10	1709.50	1747.43	1751.33	1744.10	1735.40
8					---	1630.60	1666.90	1710.80	1748.16	1751.20	1744.00	1735.00
9					---	1632.70	1669.30	1711.80	1748.69	1751.06	1743.40	1734.70
10					---	1634.40	1671.00	1713.20	1749.10	1750.92	1743.10	1734.30
11					---	1635.70	1672.50	1714.70	1749.72	1750.78	1742.90	1733.80
12					---	1636.30	1674.20	1716.00	1750.14	1750.63	1742.50	1733.30
13					---	1638.10	1675.90	1717.20	1750.52	1750.45	1742.30	1732.80
14					---	1639.00	1677.70	1718.40	1750.84	1750.27	1742.00	1732.40
15					---	1639.90	1679.30	1719.60	1751.15	1750.03	1741.70	1731.90
16					---	1640.80	1681.00	1720.70	1751.39	1749.66	1741.40	1731.50
17					---	1641.40	1682.70	1721.90	1751.57	1749.28	1741.10	1731.10
18					1585.40	1642.10	1684.10	1723.10	1751.75	1749.00	1740.80	1730.80
19					1593.90	1642.60	1685.50	1724.20	1751.89	1748.80	1740.50	1730.40
20					1597.90	1643.70	1686.80	1725.30	1752.03	1748.59	1740.20	1730.10
21					1601.80	1644.60	1688.00	1726.50	1752.18	1748.38	1739.90	1729.80
22					1604.90	1645.50	1689.40	1727.60	1752.26	1718.14	1739.60	1729.40
23					1607.60	1646.70	1690.50	1729.40	1752.26	1747.90	1739.30	1729.00
24					1609.70	1647.80	1691.70	1730.80	1752.28	1747.66	1739.10	1729.00
25					1611.30	1648.80	1692.80	1732.10	1752.19	1747.43	1739.00	1728.60
26					1613.10	1649.50	1694.50	1733.80	1752.08	1747.18	1738.80	1728.30
27					1615.00	1650.50	1695.60	1735.40	1752.02	1746.94	1738.60	1728.00
28					1617.50	1651.20	1696.70	1736.60	1751.98	1746.69	1738.30	1728.70
29					---	1652.40	1697.70	1737.80	1751.92	1746.44	1738.10	1729.60
30					---	1653.50	1698.70	1738.80	1751.85	1746.19	1737.80	1729.50
31					---	1654.50	---	1740.00	---	1745.94	1737.60	---
MEAN					---	1639.13	1678.65	1720.65	1749.61	1748.42	1741.49	1733.16
MAX					---	1654.50	1698.70	1740.00	1752.28	1751.85	1745.70	1764.40
MIN					---	1619.60	1655.60	1700.00	1741.10	1718.14	1737.60	1728.00
(†)					9,340	30,910	72,670	130,900	151,500	141,000	126,900	114,100
(‡)					+9,340	+21,570	+41,760	+58,230	+20,600	-10,500	-14,100	-12,800

† Contents, in acre-feet, at 2400, on last day of month.

‡ Change in contents, in acre-feet.

14335075 ROGUE RIVER AT MCLEOD, OR

LOCATION.--Lat 42°39'35", long 122°41'30", in SW¼NW¼ sec.34, T.33 S., R.1 E., Jackson County, Hydrologic Unit 17100307, on right bank 0.3 mi (0.5 km) upstream from mouth of Big Butte Creek, 0.1 (0.2 km) southwest of McLeod, and at mile 155.6 (250.4 km).

DRAINAGE AREA.--690 mi^2 (1,787 km^2), approximately.

PERIOD OF RECORD.--May 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1976 to current year.
pH: November 1976 to current year.
WATER TEMPERATURES: November 1976 to current year.
DISSOLVED OXYGEN: November 1976 to current year.
TURBIDITY: May 1973 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1976 to current year.

INSTRUMENTATION.--Water-quality monitor and automatic pumping sediment sampler since November 1976.

REMARKS.--Water-discharge records, obtained by subtracting Big Butte Creek near McLeod (station 14337500) from Rogue River near McLeod (station 14337600), are used for computation of daily sediment loads.

EXTREMES FOR PERIOD OF DAILY RECORD.--
TURBIDITY: Maximum, 550 JTU Jan. 15, 1974; minimum, 0 JTU on many days each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 72 micromhos Dec. 2; minimum, 53 micromhos July 7-9, 11.
pH: Maximum, 8.1 units Dec. 10; minimum, 7.0 units on many days.
WATER TEMPERATURES: Maximum, 14.5°C on several days in August and September; minimum, 0.5°C Jan. 9.
DISSOLVED OXYGEN: Maximum, 15.7 mg/l Jan. 8; minimum, 6.8 mg/l Aug. 20.
TURBIDITY: Maximum, 20 JTU June 29; minimum, 0 JTU on many days.
SEDIMENT CONCENTRATIONS: Maximum, 15 mg/l Mar. 28; minimum, 1 mg/l many days throughout year.
SEDIMENT LOADS: Maximum, 36 tons (33 tonnes) Mar. 28; minimum, 1.8 tons (1.6 tonnes) Mar. 1.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	---	65	66	67	64	58	56	56	58	65
2		68	71	64	66	67	65	59	57	56	59	65
3		68	70	63	66	67	65	58	57	56	59	65
4		69	68	64	66	66	64	58	56	57	59	65
5		68	67	65	66	66	64	58	56	56	60	65
6		69	66	65	66	66	64	58	56	56	60	65
7		69	64	65	66	66	64	59	56	55	60	65
8		69	63	65	66	65	64	59	57	54	60	65
9		69	61	65	66	65	64	58	56	54	60	65
10		69	68	65	66	65	64	58	56	55	60	65
11		68	68	63	66	65	64	57	56	55	61	65
12		69	68	64	66	65	63	57	56	55	61	66
13		68	68	64	66	65	63	57	56	55	61	65
14		68	68	65	66	64	63	57	56	55	61	66
15		68	68	65	66	64	63	57	56	55	62	66
16		68	68	65	66	64	62	57	56	55	61	66
17		69	67	64	66	64	62	57	55	56	62	66
18		69	67	65	66	64	62	57	56	56	62	66
19		69	68	65	67	64	62	57	56	56	62	66
20		68	67	65	---	64	61	57	56	56	63	66
21		68	67	65	---	64	61	57	56	56	63	66
22		70	66	65	---	64	61	57	56	57	63	67
23		70	65	65	67	64	61	58	56	57	64	67
24		70	65	65	66	65	60	57	56	57	64	67
25		69	65	65	66	65	60	57	56	57	64	67
26		69	64	65	66	65	60	57	56	58	64	67
27		69	64	65	66	65	60	57	57	58	64	67
28		69	65	65	67	65	60	57	56	58	64	67
29		69	65	66	---	65	59	57	57	58	64	67
30		---	65	66	---	65	59	57	56	58	64	67
31		---	65	66	---	65	---	57	---	58	65	---

14335075 ROGUE RIVER AT MCLEOD, OR--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTORER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1			---	---	---	---	7.8	7.7	7.9	7.7	7.8	7.7
2			7.9	7.7	7.8	7.7	7.8	7.7	7.8	7.7	7.8	7.7
3			7.9	7.7	7.9	7.6	7.9	7.7	7.8	7.7	7.7	7.7
4			7.9	7.7	7.9	7.7	7.9	7.7	7.9	7.7	7.7	7.7
5			8.0	7.7	7.9	7.7	7.9	7.7	7.8	7.7	7.7	7.7
6			8.0	7.7	7.8	7.7	7.8	7.7	7.9	7.7	7.8	7.6
7			8.0	7.7	7.8	7.7	7.8	7.7	7.9	7.7	7.8	7.6
8			8.0	7.7	7.8	7.6	7.8	7.7	7.9	7.7	7.8	7.7
9			7.9	7.7	7.8	7.6	7.8	7.7	7.9	7.7	7.7	7.6
10			7.9	7.7	8.1	7.8	7.8	7.7	7.9	7.7	7.7	7.6
11			8.0	7.7	7.9	7.8	7.8	7.6	7.9	7.7	7.8	7.6
12			7.9	7.7	7.9	7.7	7.8	7.6	7.9	7.7	7.7	7.6
13			7.9	7.7	7.9	7.7	7.8	7.7	7.9	7.7	7.7	7.6
14			7.9	7.7	7.9	7.7	7.8	7.7	7.9	7.7	7.7	7.6
15			7.9	7.6	7.9	7.7	7.8	7.7	7.9	7.7	7.7	7.6
16			7.8	7.6	7.9	7.6	7.8	7.7	7.9	7.7	7.7	7.6
17			7.8	7.6	7.8	7.7	7.8	7.6	7.9	7.7	7.7	7.6
18			7.8	7.6	7.8	7.6	7.8	7.6	7.8	7.7	7.7	7.6
19			7.9	7.6	7.8	7.6	7.8	7.7	7.8	7.7	7.7	7.6
20			7.8	7.7	7.7	7.6	7.8	7.7	---	---	7.7	7.6
21			7.9	7.6	7.7	7.6	7.9	7.6	---	---	7.7	7.6
22			7.8	7.6	7.9	7.5	7.8	7.7	7.8	7.7	7.8	7.6
23			7.8	7.6	7.9	7.6	7.8	7.7	7.8	7.7	7.7	7.6
24			7.9	7.6	7.9	7.7	7.8	7.7	7.8	7.7	7.8	7.6
25			7.9	7.7	7.8	7.7	7.8	7.7	7.8	7.7	7.8	7.6
26			7.9	7.7	7.8	7.7	7.8	7.7	7.8	7.7	7.7	7.6
27			7.9	7.7	7.9	7.7	7.8	7.7	7.8	7.7	7.7	7.6
28			7.9	7.7	7.9	7.7	7.8	7.7	7.8	7.7	7.8	7.6
29			7.8	7.7	7.9	7.7	7.8	7.7	---	---	7.9	7.7
30			---	---	7.9	7.7	7.8	7.7	---	---	7.9	7.7
31			---	---	7.9	7.7	7.9	7.7	---	---	7.8	7.7
MONTH			8.0	7.6	8.1	7.5	7.9	7.6	7.9	7.7	7.9	7.6

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMRER	
1	7.8	7.7	7.8	7.6	8.0	7.5	7.9	7.4	7.6	7.3	7.2	7.0
2	7.8	7.7	7.9	7.6	8.1	7.5	7.9	7.4	7.6	7.0	7.3	7.0
3	7.8	7.7	7.8	7.6	8.0	7.5	7.8	7.4	7.4	7.0	7.2	7.0
4	7.9	7.7	7.8	7.6	8.1	7.5	7.8	7.4	7.5	7.0	7.6	7.0
5	7.9	7.7	7.8	7.6	8.1	7.5	7.8	7.4	7.7	7.0	7.6	7.3
6	7.9	7.7	7.8	7.6	8.0	7.5	7.7	7.4	7.6	7.3	7.3	7.1
7	7.9	7.7	7.8	7.6	8.0	7.5	7.7	7.1	7.7	7.3	7.3	7.0
8	7.9	7.7	7.8	7.6	8.0	7.5	7.3	7.1	7.6	7.0	7.3	7.0
9	7.9	7.7	7.8	7.5	7.9	7.5	7.2	7.1	7.5	7.0	7.3	7.0
10	7.9	7.7	7.8	7.6	7.9	7.5	7.2	7.1	7.1	7.0	7.2	7.0
11	7.8	7.6	7.8	7.6	7.9	7.5	7.2	7.1	7.2	7.0	7.6	7.0
12	7.8	7.6	7.8	7.5	8.0	7.5	7.2	7.1	7.1	7.0	7.3	7.0
13	7.8	7.6	7.8	7.5	7.9	7.5	7.2	7.1	7.1	7.0	7.2	7.0
14	7.8	7.6	7.8	7.5	7.9	7.5	7.2	7.1	7.4	7.0	7.3	7.0
15	7.8	7.6	7.8	7.5	7.9	7.5	7.3	7.1	7.6	7.3	7.1	7.0
16	7.8	7.6	7.9	7.5	8.0	7.4	7.5	7.3	7.5	7.3	7.2	7.0
17	7.8	7.6	7.9	7.5	7.9	7.4	7.5	7.3	7.4	7.0	7.2	7.0
18	7.8	7.6	7.8	7.5	8.0	7.4	7.6	7.3	7.1	7.0	7.6	7.0
19	7.8	7.6	7.9	7.5	8.0	7.4	7.6	7.1	7.1	7.0	7.3	7.0
20	7.8	7.6	7.9	7.5	8.0	7.4	7.6	7.1	7.1	7.0	7.2	7.0
21	7.8	7.6	7.9	7.5	8.0	7.4	7.6	7.3	7.1	7.0	7.3	7.1
22	7.8	7.6	7.8	7.5	8.0	7.4	7.6	7.0	7.1	7.0	7.3	7.1
23	7.8	7.6	7.9	7.5	8.0	7.4	7.6	7.1	7.3	7.0	7.3	7.1
24	7.8	7.6	7.9	7.6	8.0	7.4	7.6	7.3	7.5	7.3	7.4	7.2
25	7.8	7.6	8.0	7.6	7.9	7.4	7.6	7.3	7.4	7.0	7.3	7.2
26	7.8	7.6	8.0	7.5	7.9	7.4	7.6	7.3	7.3	7.0	7.4	7.2
27	7.8	7.6	8.0	7.6	7.9	7.4	7.6	7.3	7.4	7.0	7.3	7.2
28	7.8	7.6	8.0	7.5	7.9	7.4	7.6	7.3	7.5	7.3	7.2	7.2
29	7.9	7.6	8.0	7.5	7.9	7.4	7.6	7.0	7.5	7.0	7.3	7.2
30	7.8	7.6	8.0	7.5	7.9	7.4	7.6	7.2	7.2	7.0	7.4	7.2
31	---	---	8.0	7.5	---	---	7.6	7.3	7.2	7.0	---	---
MONTH	7.9	7.6	8.0	7.5	8.1	7.4	7.9	7.0	7.7	7.0	7.6	7.0

14335075 ROGUE RIVER AT MCLEOD, OR--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1			---	---	---	---	3.0	2.5	5.0	3.5	5.5	4.5
2			9.0	---	4.0	---	3.5	3.0	4.5	2.5	5.0	5.0
3			8.5	---	4.0	3.0	3.5	2.5	4.0	2.0	5.5	5.0
4			8.0	---	4.5	3.5	4.0	3.0	4.5	2.5	6.0	4.5
5			7.0	---	4.0	3.0	3.5	2.0	4.0	3.0	5.5	4.5
6			8.0	---	4.0	3.0	2.5	1.0	5.0	3.5	5.0	4.5
7			7.5	---	4.0	3.0	2.5	1.0	5.0	3.5	5.0	4.5
8			8.0	---	4.0	3.5	2.5	1.0	6.0	4.5	5.5	4.5
9			7.5	---	5.0	4.0	2.5	0.5	6.0	4.5	5.5	5.0
10			7.5	---	4.0	3.0	3.0	1.5	6.0	4.5	6.0	5.0
11			8.0	6.5	3.5	2.5	3.0	2.5	6.0	4.0	6.0	5.5
12			7.5	---	3.0	2.5	3.5	2.5	6.5	4.5	6.0	5.0
13			6.5	5.5	3.5	3.0	4.0	3.0	6.5	5.0	6.0	5.0
14			6.5	6.0	3.5	2.5	4.0	3.0	6.5	4.5	6.0	5.0
15			7.5	6.5	4.0	3.0	3.5	2.5	6.5	4.5	5.5	5.0
16			8.0	---	4.0	3.0	3.5	2.5	6.5	4.5	6.0	5.0
17			7.5	---	4.0	3.0	3.5	2.5	7.0	5.0	6.0	5.0
18			7.5	7.0	3.0	2.5	4.0	2.5	5.5	4.0	5.5	5.0
19			7.0	5.5	3.0	2.0	4.0	3.0	---	---	6.0	5.0
20			6.0	5.0	3.0	1.5	4.0	2.5	---	---	6.5	5.0
21			6.0	5.0	3.0	1.5	5.0	3.5	---	---	6.5	5.0
22			5.5	4.5	3.5	2.5	5.0	3.5	---	---	6.5	5.0
23			5.5	4.0	4.5	3.0	4.5	3.0	5.0	4.5	5.5	5.0
24			5.0	4.0	3.0	2.5	4.0	2.5	5.5	4.5	6.5	5.0
25			5.5	4.5	3.5	2.5	3.5	2.0	4.5	4.0	7.0	5.5
26			5.0	3.5	3.5	3.5	3.5	1.5	5.0	4.0	6.5	5.5
27			---	---	4.0	3.5	3.5	1.5	5.5	4.5	6.0	5.5
28			---	---	3.5	3.0	3.5	2.0	5.0	4.5	6.5	5.5
29			---	---	3.5	3.0	3.5	2.0	---	---	7.0	6.0
30			---	---	4.5	3.5	3.5	2.0	---	---	7.5	6.0
31			---	---	3.5	2.5	5.0	3.0	---	---	7.0	6.0
MONTH			9.0	3.5	5.0	1.5	5.0	0.5	7.0	2.0	7.5	4.5

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.0	5.5	9.0	8.5	9.5	8.0	11.0	10.0	13.5	12.0	14.5	13.0
2	7.5	6.0	9.5	8.0	10.0	8.0	11.0	9.5	13.5	12.0	14.0	13.0
3	8.0	6.5	9.0	8.0	9.5	8.0	10.5	10.0	13.5	12.0	14.5	13.0
4	8.5	6.5	9.0	8.0	10.0	8.0	10.5	9.5	13.5	12.0	14.5	13.5
5	9.0	6.5	8.5	8.0	10.5	8.0	11.0	9.5	14.0	12.0	14.5	13.0
6	9.0	7.0	9.5	7.5	10.5	8.0	10.0	10.0	14.0	12.0	14.5	13.0
7	9.0	7.0	9.0	7.5	10.5	8.5	11.0	9.5	14.0	12.5	14.5	13.0
8	8.0	7.0	9.0	7.5	10.5	8.5	11.0	9.5	13.5	12.0	14.0	13.0
9	8.0	7.0	8.5	7.5	10.0	8.5	11.0	9.5	13.5	12.5	14.0	13.0
10	8.5	7.0	8.0	7.5	10.0	9.0	11.0	10.0	14.0	12.5	14.0	13.0
11	9.0	7.5	9.0	7.5	10.0	9.0	11.5	10.0	14.0	12.0	14.5	13.0
12	9.0	7.0	9.0	7.5	10.5	8.5	11.5	10.0	14.0	12.5	14.0	13.0
13	9.0	7.0	9.0	7.5	10.0	8.5	11.5	10.5	14.0	12.5	14.0	13.0
14	8.5	6.5	8.5	7.5	10.5	9.0	11.5	10.5	14.0	12.5	14.0	12.5
15	9.0	7.0	8.5	7.5	10.0	8.5	11.5	10.5	14.5	12.5	13.5	13.0
16	9.0	7.0	9.0	7.5	10.5	8.5	12.0	11.0	14.5	13.0	13.5	13.0
17	9.0	6.5	9.0	7.5	9.5	9.0	12.0	11.0	14.0	13.0	13.5	13.0
18	9.0	6.5	8.5	7.5	10.0	9.5	12.0	11.0	14.0	12.5	13.5	13.0
19	9.0	6.5	9.5	8.0	10.5	9.0	12.5	11.0	14.0	12.5	13.5	12.5
20	8.5	7.0	9.5	7.5	10.0	9.0	12.5	11.0	14.0	13.0	13.0	12.5
21	9.0	7.0	9.5	8.0	10.5	9.0	12.5	11.0	14.5	12.5	13.5	12.5
22	8.5	7.0	8.5	7.5	10.5	9.5	12.5	11.0	14.5	12.5	13.0	12.5
23	8.5	7.5	9.0	7.5	10.5	9.0	13.0	11.0	13.5	13.0	12.5	10.5
24	8.5	7.5	9.5	7.5	10.5	9.0	13.0	11.0	14.5	13.0	11.0	10.5
25	8.5	7.5	9.0	8.0	10.5	9.5	12.5	11.5	13.5	13.0	11.0	10.5
26	9.0	7.5	9.0	7.5	10.5	9.5	13.0	11.5	14.0	13.0	11.5	10.5
27	9.0	7.5	9.0	7.5	11.0	9.5	13.0	11.5	14.0	13.0	11.0	10.5
28	8.5	7.5	9.5	7.5	11.0	9.5	13.0	11.5	14.0	13.0	11.0	10.5
29	9.5	7.5	10.0	7.5	11.0	9.5	13.0	11.5	14.5	13.0	11.0	10.5
30	9.5	8.0	9.5	7.5	10.5	9.5	13.5	11.5	14.0	13.0	11.0	10.5
31	---	---	9.5	8.0	---	---	13.5	12.0	14.0	13.0	---	---
MONTH	9.5	5.5	10.0	7.5	11.0	8.0	13.5	9.5	14.5	12.0	14.5	10.5

14335075 ROGUE RIVER AT MCLEOD, OR--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1				---	---	---	---	---	---	12.6	12.1	12.4
2				12.2	11.6	11.9	13.3	12.9	13.1	12.6	11.9	12.3
3				12.2	11.7	11.9	13.3	12.3	12.8	12.7	12.2	12.4
4				12.2	11.7	11.9	12.5	12.0	12.2	12.6	11.9	12.3
5				12.2	11.7	11.9	12.7	11.9	12.3	13.0	12.0	12.5
6				11.9	11.2	11.5	12.4	11.3	11.9	14.9	12.3	13.3
7				11.6	10.6	11.2	11.7	11.0	11.3	15.6	14.7	15.2
8				11.8	10.4	11.1	11.0	10.3	10.7	15.7	15.0	15.3
9				12.0	11.4	11.8	13.4	10.0	11.0	15.4	14.9	15.2
10				12.0	11.0	11.5	13.8	13.2	13.5	15.2	13.6	14.7
11				12.0	11.4	11.7	13.8	13.2	13.4	13.9	12.6	13.3
12				12.2	11.7	11.9	13.6	13.1	13.3	14.7	13.6	14.1
13				12.4	12.0	12.2	13.5	13.0	13.2	14.8	14.3	14.6
14				12.1	10.5	11.3	13.6	13.0	13.3	14.8	14.4	14.6
15				12.0	10.3	11.1	13.9	13.5	13.7	15.1	14.7	14.9
16				11.7	10.3	11.2	14.0	13.3	13.6	15.4	14.8	15.0
17				11.9	11.2	11.6	13.8	13.3	13.5	15.2	14.7	15.0
18				11.6	10.9	11.3	13.9	13.4	13.7	15.1	14.5	14.8
19				11.4	11.0	11.2	14.2	13.7	13.9	14.7	14.0	14.4
20				12.1	11.2	11.6	14.2	13.8	14.0	14.4	13.9	14.2
21				13.3	12.2	12.9	14.2	13.6	13.9	14.2	13.7	14.0
22				13.6	12.8	13.3	14.1	13.4	13.7	14.2	13.5	14.0
23				13.3	12.7	13.0	13.6	12.9	13.3	14.5	13.8	14.1
24				13.1	12.5	12.8	13.6	13.0	13.4	14.6	14.0	14.4
25				12.6	12.0	12.3	13.4	12.8	13.1	14.9	14.2	14.5
26				12.8	12.2	12.4	13.3	12.7	12.9	15.1	14.5	14.8
27				12.9	12.2	12.7	12.9	12.5	12.7	15.1	14.4	14.8
28				12.9	12.2	12.6	13.0	12.6	12.8	15.0	14.4	14.7
29				12.6	12.2	12.4	12.8	12.3	12.5	15.0	13.7	14.3
30				---	---	---	12.4	12.1	12.3	14.1	13.6	13.8
31				---	---	---	12.8	12.3	12.5	13.7	13.2	13.5
MONTH				13.6	10.3	11.9	14.2	10.0	12.9	15.7	11.9	14.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.6	13.0	13.4	11.0	10.7	10.9	11.7	11.4	11.6	11.2	10.9	11.0
2	13.7	13.1	13.4	10.8	10.6	10.7	11.5	11.0	11.2	11.2	10.8	11.0
3	13.6	13.0	13.4	11.3	10.6	10.9	11.2	10.6	10.8	11.0	10.5	10.8
4	13.5	12.8	13.2	12.2	11.2	11.7	10.9	10.4	10.6	11.0	10.6	10.8
5	13.1	12.5	12.9	12.8	12.2	12.6	10.6	10.0	10.3	10.9	10.6	10.7
6	12.7	12.1	12.4	12.7	12.4	12.6	10.6	10.2	10.4	10.9	10.5	10.6
7	12.5	11.8	12.2	12.9	12.5	12.7	11.5	10.7	11.1	11.1	10.6	10.9
8	12.0	11.4	11.8	13.0	12.6	12.8	11.5	11.1	11.3	11.6	11.0	11.3
9	12.0	11.4	11.7	12.9	12.6	12.8	11.7	11.1	11.4	11.9	11.3	11.6
10	11.9	11.1	11.5	13.1	12.7	12.8	11.7	11.3	11.5	12.1	11.4	11.8
11	11.7	11.0	11.4	12.9	12.5	12.7	11.7	11.3	11.5	12.0	11.5	11.7
12	11.6	10.9	11.3	12.7	12.5	12.6	12.0	11.5	11.6	12.0	11.6	11.8
13	11.3	10.5	11.0	12.8	12.5	12.6	11.6	11.2	11.5	12.2	11.8	12.0
14	11.3	10.6	10.9	12.7	12.4	12.5	11.9	11.3	11.6	12.4	11.8	12.0
15	11.0	10.5	10.8	12.6	12.4	12.5	11.6	11.0	11.3	12.3	11.9	12.1
16	12.1	10.6	11.0	12.6	12.4	12.5	11.5	11.0	11.2	12.4	11.9	12.1
17	13.2	12.2	12.7	12.6	12.4	12.5	11.4	11.0	11.2	12.5	12.0	12.2
18	13.6	12.3	12.8	12.7	12.3	12.5	11.5	11.0	11.2	12.6	12.0	12.2
19	12.8	12.4	12.6	12.7	12.4	12.5	11.4	10.9	11.1	12.5	12.0	12.2
20	---	---	---	12.6	12.3	12.5	11.4	11.0	11.2	12.4	11.8	12.1
21	---	---	---	12.5	12.1	12.3	11.6	11.2	11.4	12.4	11.7	12.0
22	12.1	12.0	12.0	12.2	11.9	12.1	11.7	11.4	11.6	12.0	11.6	11.8
23	11.9	11.8	11.9	12.1	11.7	11.9	11.8	11.4	11.6	11.9	11.5	11.8
24	12.0	11.7	11.8	11.9	11.5	11.7	11.8	11.4	11.6	12.2	11.5	11.9
25	11.9	11.6	11.8	11.8	11.4	11.6	11.9	11.4	11.6	12.3	11.5	11.9
26	11.7	11.3	11.5	11.5	10.8	11.2	11.9	11.4	11.6	12.3	11.7	12.0
27	11.4	11.0	11.2	11.8	10.3	11.2	11.8	11.4	11.5	12.5	12.1	12.3
28	11.2	10.9	11.0	12.4	---	---	11.7	11.3	11.5	12.8	12.0	12.4
29	---	---	---	12.3	11.9	12.1	11.7	11.1	11.3	12.9	12.1	12.4
30	---	---	---	12.1	11.6	11.9	11.4	10.9	11.2	13.0	12.4	12.6
31	---	---	---	11.8	11.6	11.7	---	---	---	13.2	12.5	12.9
MONTH	13.7	10.5	12.0	13.1	10.3	12.1	12.0	10.0	11.3	13.2	10.5	11.8

14335075 ROGUE RIVER AT MCLEOD, OR—Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13.5	12.8	13.1	13.2	12.1	12.5	11.1	10.0	10.5	9.0	8.2	8.7
2	13.7	13.0	13.4	13.2	12.2	12.7	11.0	8.8	10.1	9.5	7.6	8.5
3	13.9	13.3	13.6	13.2	11.1	12.4	10.6	8.8	9.2	8.1	7.1	7.6
4	14.1	13.1	13.6	12.3	11.4	11.8	10.2	8.6	9.2	8.9	7.3	8.5
5	13.8	12.1	13.2	12.2	11.3	11.8	10.5	8.6	9.4	9.2	8.5	8.9
6	13.0	11.8	12.5	11.9	11.4	11.7	10.5	9.5	10.0	9.0	8.0	8.5
7	12.4	11.5	12.0	13.1	11.1	12.1	10.0	9.1	9.6	9.1	8.2	8.6
8	12.4	11.7	12.0	12.0	11.0	11.5	9.5	7.6	8.7	9.4	8.7	9.0
9	12.4	11.5	12.0	11.9	11.0	11.5	9.4	7.7	8.2	9.5	8.6	9.0
10	12.4	11.6	12.0	11.8	11.0	11.4	8.6	7.8	8.2	9.5	8.7	9.0
11	12.6	11.6	12.0	11.7	10.9	11.2	8.7	8.0	8.3	10.8	8.8	10.2
12	12.4	11.7	12.0	11.4	10.6	11.0	8.9	8.1	8.5	10.2	8.8	9.5
13	12.7	11.8	12.2	11.2	10.2	10.7	9.2	8.5	8.7	9.5	8.7	9.1
14	12.7	11.8	12.3	10.8	10.1	10.5	10.1	8.7	9.3	9.5	8.7	9.0
15	12.3	11.1	11.9	11.0	9.9	10.3	10.7	9.9	10.3	9.0	8.4	8.7
16	12.0	11.0	11.5	11.4	10.6	10.9	10.5	9.7	10.0	8.7	8.0	8.4
17	11.8	10.9	11.4	11.2	10.5	10.8	9.8	7.9	8.9	8.7	7.9	8.2
18	11.8	10.2	11.1	11.3	10.0	10.7	8.1	7.3	7.8	10.2	8.3	9.6
19	11.6	10.3	10.9	11.2	9.1	10.3	7.5	6.9	7.2	10.0	8.9	9.4
20	11.7	10.4	11.0	11.2	9.2	10.3	7.3	6.8	7.0	9.7	9.0	9.3
21	11.8	10.8	11.4	11.3	10.5	10.8	7.6	6.9	7.3	10.0	9.4	9.6
22	12.3	11.1	11.7	11.2	9.0	10.4	7.7	7.1	7.3	10.1	9.4	9.7
23	12.5	11.4	12.0	10.7	9.1	9.9	8.3	7.0	7.3	10.8	9.5	10.0
24	12.5	11.3	11.9	10.3	9.5	9.9	8.6	8.1	8.4	11.2	10.6	10.9
25	12.6	11.5	12.0	10.3	9.5	9.9	9.0	7.8	8.6	11.2	10.6	10.8
26	12.8	11.6	12.1	10.6	9.6	10.1	9.6	8.5	8.9	11.0	10.4	10.7
27	12.8	11.5	12.1	10.6	9.7	10.1	10.2	8.7	9.3	10.8	10.4	10.6
28	12.9	11.8	12.3	10.5	9.7	10.1	10.6	10.0	10.3	10.7	10.4	10.5
29	13.1	11.8	12.4	10.6	8.7	10.0	10.5	8.6	9.8	11.0	10.5	10.7
30	13.2	11.9	12.4	10.6	9.6	10.2	9.2	8.6	8.9	10.9	10.3	10.6
31	---	---	---	11.0	10.1	10.5	9.2	8.6	8.8	---	---	---
MONTH	14.1	10.2	12.1	13.2	8.7	10.9	11.1	6.8	8.8	11.2	7.1	9.4

TURBIDITY (JTU), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	3	1	2
2	---	---	---	3	2	3	3	1	2	2	0	1
3	---	---	---	5	0	2	3	2	3	2	0	1
4	---	---	---	3	1	1	4	2	3	3	1	2
5	0	0	0	3	1	2	3	2	3	3	1	2
6	0	0	0	3	1	2	3	2	3	3	0	1
7	0	0	0	3	1	2	4	2	3	2	0	1
8	1	0	0	3	0	2	3	2	3	2	0	1
9	0	0	0	3	1	2	3	3	3	3	0	1
10	0	0	0	2	1	2	3	0	2	2	0	1
11	0	0	0	3	0	1	5	2	4	2	0	1
12	0	0	0	1	0	1	6	3	5	3	0	1
13	15	0	1	2	0	1	6	5	5	1	0	1
14	0	0	0	1	0	1	7	3	5	2	0	1
15	0	0	0	1	0	1	5	3	3	1	0	1
16	0	0	0	1	0	1	4	3	3	1	0	1
17	0	0	0	1	0	1	5	3	5	4	0	2
18	0	0	0	1	1	1	6	4	5	4	0	2
19	0	0	0	10	0	5	6	4	5	2	0	1
20	2	0	0	15	10	15	6	1	4	3	0	1
21	0	0	0	15	15	15	3	1	3	9	1	4
22	0	0	0	15	0	8	3	0	2	3	1	2
23	0	0	0	6	3	5	3	1	2	1	0	1
24	0	0	0	7	5	6	3	2	3	4	0	1
25	0	0	0	7	5	7	3	1	2	1	0	1
26	0	0	0	8	6	7	2	1	2	2	0	1
27	---	---	---	9	7	8	2	0	2	2	0	1
28	---	---	---	10	7	8	3	1	2	3	0	1
29	---	---	---	9	8	9	3	1	2	1	0	1
30	---	---	---	---	---	---	2	1	1	1	0	1
31	---	---	---	---	---	---	3	1	2	3	0	1
MONTH	15	0	0	15	0	4	7	0	3	9	0	1

14335075 ROGUE RIVER AT MCLEOD, OR—Continued

TURBIDITY (JTU), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3	0	1	---	---	---	5	3	3	3	2	2
2	3	0	1	3	1	2	3	1	2	2	2	2
3	3	0	2	3	1	2	5	1	3	2	1	2
4	3	0	1	---	---	---	7	2	4	2	1	1
5	3	0	1	---	---	---	7	3	5	2	1	1
6	1	0	1	---	---	---	7	3	5	2	1	1
7	1	0	1	---	---	---	7	1	4	1	1	1
8	2	0	1	---	---	---	7	3	4	2	1	1
9	2	0	1	6	3	5	3	1	1	2	1	1
10	---	---	---	6	3	4	3	0	1	2	1	1
11	---	---	---	5	4	5	9	1	4	2	1	2
12	---	---	---	7	4	5	15	1	6	2	1	2
13	---	---	---	7	3	5	4	3	4	2	1	2
14	---	---	---	---	---	---	3	2	2	2	1	2
15	---	---	---	---	---	---	3	2	3	2	1	1
16	---	---	---	---	---	---	3	2	3	1	1	1
17	---	---	---	---	---	---	3	2	2	2	1	1
18	---	---	---	---	---	---	3	2	2	2	1	1
19	---	---	---	---	---	---	3	2	2	2	1	1
20	---	---	---	---	---	---	3	2	2	2	1	1
21	---	---	---	---	---	---	3	2	3	2	1	2
22	2	0	1	---	---	---	3	2	3	2	1	1
23	2	0	1	---	---	---	3	2	3	2	1	2
24	5	0	3	---	---	---	3	2	2	2	2	2
25	5	3	4	---	---	---	2	2	2	2	1	2
26	3	1	3	2	0	1	2	2	2	2	1	2
27	---	---	---	9	0	1	2	2	2	2	1	1
28	---	---	---	10	0	3	2	2	2	2	1	1
29	---	---	---	10	0	4	2	2	2	2	1	2
30	---	---	---	5	3	4	2	2	2	2	1	2
31	---	---	---	5	3	3	---	---	---	2	2	2
MONTH	5	0	1	10	0	3	15	0	2	3	1	1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	2	2	2	1	1	1	7	1	2	1	0	1
2	2	2	2	1	1	1	3	1	2	2	1	1
3	2	2	2	1	1	1	5	1	2	1	1	1
4	2	2	2	1	0	1	8	1	2	2	1	1
5	2	2	2	1	0	0	6	1	2	1	1	1
6	3	2	2	1	0	0	2	1	2	2	1	1
7	2	2	2	10	1	3	2	1	2	1	1	1
8	5	2	3	5	1	2	10	1	3	3	1	1
9	3	3	3	1	1	1	4	2	2	1	1	1
10	3	2	3	1	1	1	2	1	2	1	1	1
11	3	2	2	3	1	1	2	1	2	5	1	1
12	3	2	2	2	1	1	1	0	1	4	1	1
13	3	2	2	1	1	1	1	0	1	2	1	1
14	2	2	2	1	1	1	1	0	1	2	1	1
15	2	2	2	3	1	1	1	0	1	2	1	1
16	2	2	2	2	1	2	6	0	3	1	1	1
17	2	2	2	2	1	1	8	2	3	1	1	1
18	3	1	2	2	1	1	9	1	2	5	1	1
19	---	---	---	2	1	1	6	1	2	1	1	1
20	---	---	---	2	1	1	1	1	1	2	0	0
21	---	---	---	1	1	1	1	1	1	1	0	0
22	---	---	---	2	1	1	1	1	1	0	0	0
23	---	---	---	1	1	1	5	1	2	0	0	0
24	1	1	1	1	1	1	2	1	1	0	0	0
25	1	1	1	1	1	1	1	1	1	1	0	0
26	1	1	1	1	1	1	1	0	1	1	0	1
27	10	1	2	2	1	1	1	0	0	1	0	0
28	1	1	1	1	1	1	1	1	1	1	0	0
29	20	1	3	1	1	1	4	1	1	0	0	0
30	5	1	1	3	1	1	3	1	1	0	0	0
31	---	---	---	2	1	1	1	1	1	---	---	---
MONTH	20	1	1	10	0	1	10	0	1	5	0	0

14335075 ROGUE RIVER AT MCLEOD, OR--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	1150	2	6.2	1220	2	6.6	1030	6	17
2	1340	3	11	1190	2	6.4	1030	2	5.6
3	1250	3	10	1140	2	6.2	1000	4	11
4	1200	3	9.7	1100	3	8.9	1030	3	8.3
5	1190	3	9.6	1090	3	8.8	1030	3	8.3
6	1180	2	6.4	1090	3	8.8	1000	2	5.4
7	1160	2	6.3	1080	3	8.7	1000	3	8.1
8	1150	2	6.2	1070	3	8.7	1030	1	2.8
9	1140	2	6.2	1070	5	14	1070	4	12
10	1140	2	6.2	1070	1	2.9	998	3	8.1
11	1140	2	6.2	1070	1	2.9	1020	3	8.3
12	1140	2	6.2	1070	1	2.9	1030	3	8.3
13	1100	3	8.9	1050	1	2.8	1020	3	8.3
14	1140	3	9.2	1160	2	6.3	1000	3	8.1
15	1120	3	9.1	1190	2	6.4	995	3	8.1
16	1120	3	9.1	1260	4	14	1000	3	8.1
17	1140	3	9.2	1150	3	9.3	1010	3	8.2
18	1110	2	6.0	1110	5	15	1000	3	8.1
19	1130	2	6.1	1100	5	15	1000	3	8.1
20	1130	2	6.1	1090	5	15	1000	3	8.1
21	1120	2	6.0	1070	6	17	997	2	5.4
22	1120	2	6.0	1070	2	5.8	995	1	2.7
23	1110	2	6.0	1060	2	5.7	995	1	2.7
24	1110	3	9.0	1070	2	5.8	993	2	5.4
25	1220	3	9.9	1060	1	2.9	995	2	5.4
26	1240	3	10	1060	2	5.7	1040	2	5.6
27	1150	3	9.3	1030	2	5.6	1020	2	5.5
28	1140	3	9.2	1030	1	2.8	995	2	5.4
29	1140	2	6.2	1030	1	2.8	995	2	5.4
30	1140	2	6.2	1030	1	2.8	995	3	8.1
31	1130	2	6.1	---	---	---	999	3	8.1
TOTAL	35790	---	237.8	32880	---	226.5	31312	---	228.0
		JANUARY			FEBRUARY			MARCH	
1	985	2	5.3	942	1	2.5	678	1	1.8
2	1070	2	5.8	947	1	2.6	697	2	3.8
3	1050	3	8.5	943	1	2.5	693	2	3.7
4	1010	3	8.2	945	1	2.6	711	3	5.8
5	982	3	8.0	945	1	2.6	722	3	5.8
6	913	3	7.4	942	1	2.5	719	2	3.9
7	950	3	7.7	942	2	5.1	729	2	3.9
8	961	2	5.2	942	1	2.5	746	2	4.0
9	933	2	5.0	942	1	2.5	746	3	6.0
10	1020	5	14	942	1	2.5	772	3	6.3
11	1100	5	15	942	2	5.1	786	3	6.4
12	1050	3	8.5	942	2	5.1	782	2	4.2
13	1020	3	8.3	942	2	5.1	795	2	4.3
14	990	2	5.3	942	1	2.5	799	2	4.3
15	986	2	5.3	942	1	2.5	807	2	4.4
16	990	3	8.0	943	1	2.5	799	3	6.5
17	982	3	8.0	943	2	5.1	801	3	6.5
18	982	3	8.0	643	4	6.9	804	2	4.3
19	980	3	7.9	498	3	4.0	813	2	4.4
20	970	3	7.9	543	2	2.9	822	2	4.4
21	958	3	7.8	575	2	3.1	813	2	4.4
22	958	3	7.8	591	2	3.2	820	2	4.4
23	960	3	7.8	618	2	3.3	830	2	4.5
24	962	1	2.6	632	2	3.4	835	2	4.5
25	953	1	2.6	645	2	3.5	846	3	6.9
26	955	2	5.2	638	2	3.4	850	4	9.2
27	943	2	5.1	654	2	3.5	852	14	32
28	943	3	7.6	665	3	5.4	896	15	36
29	945	3	7.7	---	---	---	733	10	20
30	945	3	7.7	---	---	---	729	6	12
31	942	3	7.6	---	---	---	714	5	9.6
TOTAL	30388	---	226.8	22730	---	98.4	24139	---	238.2

14335075 ROGUE RIVER AT MCLEOD, OR--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	710	4	7.7	818	6	13	721	6	12
2	694	4	7.5	774	5	10	713	4	7.7
3	693	4	7.5	749	4	8.1	714	3	5.8
4	691	4	7.5	702	4	7.6	721	3	5.8
5	700	4	7.6	719	4	7.8	723	3	5.9
6	698	5	9.4	714	4	7.7	761	3	6.2
7	693	5	9.4	699	5	9.4	797	3	6.5
8	650	4	7.0	696	5	9.4	872	5	12
9	649	4	7.0	698	5	9.4	972	6	16
10	659	5	8.9	744	5	10	978	4	11
11	660	7	12	787	4	8.5	975	4	11
12	642	9	16	785	3	6.4	983	5	13
13	635	6	10	779	3	6.3	986	5	13
14	637	5	8.6	775	4	8.4	991	4	11
15	636	5	8.6	749	4	8.1	1000	4	11
16	643	5	8.7	713	3	5.8	993	4	11
17	645	5	8.7	706	3	5.7	983	4	11
18	638	5	8.6	712	3	5.8	985	4	11
19	633	5	8.5	719	3	5.8	985	4	11
20	643	6	10	710	2	3.8	988	3	8.0
21	665	6	11	706	2	3.8	990	3	8.0
22	711	6	12	708	3	5.7	1000	3	8.1
23	752	6	12	699	3	5.7	1030	3	8.3
24	746	5	10	727	3	5.9	1050	4	11
25	738	5	10	723	2	3.9	1110	4	12
26	730	5	9.9	691	2	3.7	1120	4	12
27	739	5	10	723	2	3.9	1050	4	11
28	752	5	10	726	2	3.9	1010	8	22
29	787	5	11	724	2	3.9	1020	12	33
30	794	5	11	722	2	3.9	1020	12	33
31	---	---	---	722	2	3.9	---	---	---
TOTAL	20663	---	286.1	22619	---	205.2	28241	---	358.3
		JULY			AUGUST			SEPTEMBER	
1	1020	12	33	997	4	11	1000	3	8.1
2	1020	8	22	987	4	11	1000	3	8.1
3	1010	6	16	1000	4	11	998	2	5.4
4	1010	7	19	1040	4	11	992	2	5.4
5	1010	7	19	1040	4	11	1020	3	8.3
6	1020	12	33	1000	4	11	1010	3	8.2
7	1030	10	28	999	4	11	1010	3	8.2
8	1020	5	14	992	5	13	992	3	8.0
9	1020	5	14	1020	5	14	1060	2	5.7
10	1020	3	8.3	1000	2	5.4	1090	2	5.9
11	1010	3	8.2	1000	2	5.4	1080	4	12
12	1010	2	5.5	997	2	5.4	1100	4	12
13	1020	2	5.5	997	2	5.4	1100	2	5.9
14	1010	2	5.5	999	2	5.4	1110	3	9.0
15	1070	2	5.8	994	3	8.1	1120	3	9.1
16	1210	4	13	994	4	11	1110	3	9.0
17	1210	4	13	997	5	13	1110	3	9.0
18	1110	3	9.0	1010	4	11	1100	3	8.9
19	1040	3	8.4	1000	4	11	1100	2	5.9
20	1010	3	8.2	1000	3	8.1	1100	2	5.9
21	1020	2	5.5	985	3	8.0	1120	2	6.0
22	1030	2	5.6	1000	5	13	1120	2	6.0
23	1040	2	5.6	1010	5	14	1120	3	9.1
24	1020	2	5.5	1000	4	11	1110	3	9.0
25	1010	2	5.5	1000	4	11	1110	3	9.0
26	1010	3	8.2	1010	3	8.2	1100	3	8.9
27	1010	3	8.2	1010	3	8.2	1100	4	12
28	1010	3	8.2	1010	3	8.2	1070	4	12
29	1010	3	8.2	1010	3	8.2	1090	4	12
30	1010	3	8.2	1010	3	8.2	1130	4	12
31	1000	3	8.1	1010	3	8.2	---	---	---
TOTAL	32050	---	365.2	31118	---	299.4	32272	---	254.0
YEAR	344202		3023.9						

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	DATE	TIME	DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
MAR					MAR				
06...	1200	719	2	90	07...	1200	729	2	90

14335500 SOUTH FORK BIG BUTTE CREEK NEAR BUTTE FALLS, OR

LOCATION.--Lat 42°32'25", long 122°33'15", in NE¼SW¼ sec.11, T.35 S., R.2 E., Jackson County, Hydrologic Unit 17100307, on right bank 10 ft (3 m) downstream from Ginger Creek, 0.6 mi (1.0 km) east of town of Butte Falls, and at mile 14.0 (22.5 km).

DRAINAGE AREA.--138 mi² (357 km²).

PERIOD OF RECORD.--September 1910 to October 1911 (published as "at Butte Falls"), August to October 1915, October 1917 to September 1922, March 1925 to current year. Monthly discharge only August, September 1915, published in WSP 1318.

REVISED RECORDS.--WSP 1288: 1911, 1918-19, 1921-22, 1929. WSP 1318: 1918-19. WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Oct. 1, 1968. Altitude of gage is 2,360 ft (719 m), from river-profile map. Sept. 21, 1910, to Sept. 30, 1922, nonrecording gage at site 300 ft (91 m) upstream at different datums.

REMARKS.--Records good. Flow slightly regulated since 1952 by Willow Creek Reservoir, capacity, 7,320 acre-ft (9.03 hm³). Diversions for irrigation above station and for municipal water supply for Medford (since 1927) and Butte Falls.

AVERAGE DISCHARGE.--58 years (water years 1911, 1918-22, 1926-77), 159 ft³/s (4.503 m³/s), 115,200 acre-ft/yr (142 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft³/s (357 m³/s) Dec. 22, 1964, gage height, 7.65 ft (2.332 m), from rating curve extended above 1,600 ft³/s (45.3 m³/s) on basis of slope-area measurement of peak flow; minimum, 33 ft³/s (0.93 m³/s) Oct. 2, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 179 ft³/s (5.07 m³/s) Sept. 28, gage height, 1.53 ft (0.466 m), no peak above base of 450 ft³/s (12.7 m³/s); minimum, 49 ft³/s (1.39 m³/s) Dec. 24, Jan. 6, 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	72	64	56	59	68	74	75	101	68	61	57
2	77	72	64	68	57	68	77	81	96	68	61	57
3	74	70	64	62	57	79	74	98	94	66	59	59
4	74	70	64	57	57	70	74	90	90	66	66	56
5	75	68	64	57	57	66	74	90	87	66	66	56
6	74	68	64	54	57	64	72	87	81	66	64	56
7	74	68	61	56	57	64	74	85	85	64	70	52
8	72	68	61	54	57	66	79	85	85	62	74	52
9	72	68	64	54	57	85	79	85	83	62	62	54
10	72	66	61	59	57	75	75	103	83	62	61	54
11	72	66	61	61	57	68	72	110	87	64	59	54
12	68	66	61	62	56	74	72	103	83	62	59	56
13	68	66	61	61	56	70	74	94	79	62	61	52
14	68	72	59	59	56	66	74	94	79	62	61	52
15	68	72	59	59	56	64	74	96	77	64	59	54
16	70	70	59	57	56	61	74	101	74	62	57	56
17	66	68	59	57	61	59	74	101	75	61	57	57
18	66	66	59	59	64	57	72	101	75	61	57	57
19	66	68	57	59	54	62	72	98	77	61	57	61
20	68	68	57	59	56	61	74	96	74	62	59	61
21	68	68	57	59	61	59	74	94	74	62	61	57
22	70	66	57	59	61	59	74	103	68	62	61	56
23	70	66	57	59	59	66	72	128	68	62	57	57
24	72	64	56	57	59	66	72	123	66	62	66	68
25	75	66	57	56	59	68	74	113	66	68	62	61
26	75	66	57	54	62	68	74	135	66	62	62	57
27	72	64	57	54	62	70	72	130	70	62	61	61
28	72	64	56	54	74	68	72	120	64	61	61	133
29	72	64	57	56	---	66	72	113	62	62	62	108
30	72	64	57	57	---	66	72	108	64	62	61	64
31	74	---	56	57	---	66	---	101	---	61	59	---
TOTAL	2208	2024	1847	1792	1641	2069	2212	3141	2333	1957	1903	1835
MEAN	71.2	67.5	59.6	57.8	58.6	66.7	73.7	101	77.8	63.1	61.4	61.2
MAX	77	72	64	68	74	85	79	135	101	68	74	133
MIN	66	64	56	54	54	57	72	75	62	61	57	52
AC-FT	4380	4010	3660	3550	3250	4100	4390	6230	4630	3880	3770	3640

CAL YR 1976 TOTAL 48835 MEAN 133 MAX 525 MIN 56 AC-FT 96860
WTR YR 1977 TOTAL 24962 MEAN 68.4 MAX 135 MIN 52 AC-FT 49510

14337500 BIG BUTTE CREEK NEAR MCLEOD, OR

LOCATION.--Lat 42°39'05", long 122°41'25", in NE¼NW¼ sec.3, T.34 S., R.1 E., Jackson County, Hydrologic Unit 17100307, on right bank 225 ft (69 m) upstream from county road bridge, 0.9 mi (1.4 km) south of McLeod, and at mile 0.64 (1.03 km).

DRAINAGE AREA.--245 mi^2 (635 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to September 1957. October 1967 to current year.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,525.95 ft (465.110 m) above mean sea level. Oct. 9, 1945, to Sept. 30, 1957, nonrecording gage at site 260 ft (79 m) downstream at datum 0.53 ft (0.162 m) higher.

REMARKS.--Water-discharge records fair. Slight regulation by fish hatchery 600 ft (183 m) above station. Several diversions in the vicinity of Butte Falls, the two largest being the city of Medford diversion and Eagle Point Irrigation District Canal.

AVERAGE DISCHARGE.--22 years, 300 ft^3/s (8.496 m^3/s), 217,400 acre-ft/yr (268 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,950 ft^3/s (253 m^3/s) Dec. 22, 1955, gage height, 12.75 ft (3.886 m), site and datum then in use, from rating curve extended above 3,300 ft^3/s (93.5 m^3/s) on basis of slope-area measurement of peak flow; minimum, 6.4 ft^3/s (0.18 m^3/s) June 23, 24, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 18.6 ft (5.67 m), present site, from floodmark by local resident, discharge, 16,800 ft^3/s (476 m^3/s), from rating curve, at former site, extended above 9,000 ft^3/s (255 m^3/s) and field estimate of overflow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 603 ft^3/s (17.1 m^3/s) Sept. 28, gage height, 4.18 ft (1.274 m), no peak above base of 1,800 ft^3/s (51.0 m^3/s); minimum, 6.4 ft^3/s (0.18 m^3/s) June 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	156	60	57	58	179	77	66	118	37	44	43
2	87	134	57	83	53	173	81	103	113	39	43	41
3	68	98	58	79	57	246	75	96	105	40	43	37
4	62	89	58	73	55	186	77	156	98	41	43	37
5	62	73	58	66	55	161	75	125	83	37	43	40
6	62	73	58	68	58	164	77	131	77	39	43	40
7	62	73	57	98	58	161	75	133	73	37	49	40
8	60	73	60	62	58	164	89	123	73	39	55	37
9	60	72	64	60	58	272	96	115	69	37	44	35
10	60	72	62	60	58	209	81	101	69	39	46	41
11	58	72	60	66	58	177	75	103	79	40	44	41
12	57	70	58	79	58	199	77	85	71	46	44	39
13	57	70	58	73	58	18[illegible]	79	66	62	47	44	39
14	57	77	58	70	58	165	77	57	57	46	43	35
15	57	77	58	64	58	150	73	96	54	41	41	32
16	102	75	60	60	57	153	71	125	49	44	41	41
17	134	75	58	58	57	150	69	125	52	40	39	41
18	131	77	58	58	126	147	71	120	57	41	39	44
19	142	75	53	60	112	150	71	113	57	39	39	57
20	139	73	53	60	112	147	71	103	54	40	47	41
21	142	73	57	62	150	150	69	101	52	39	44	40
22	142	83	58	62	159	125	64	118	44	41	41	41
23	142	147	58	60	144	92	60	288	24	41	41	43
24	147	136	55	58	156	98	60	213	15	41	46	50
25	161	62	58	57	136	87	62	168	32	41	44	41
26	159	62	58	55	156	77	69	272	35	43	46	41
27	153	62	58	57	159	81	60	216	35	43	41	41
28	150	60	58	57	186	85	60	171	36	41	41	280
29	150	60	58	55	---	79	64	153	32	40	41	292
30	153	60	58	55	---	77	96	136	33	41	37	94
31	156	---	55	58	---	79	---	123	---	68	41	---
TOTAL	3238	2459	1797	1990	2568	4563	2201	4101	1808	1288	1337	1764
MEAN	104	82.0	58.0	64.2	91.7	147	73.4	132	60.3	41.5	43.1	58.8
MAX	161	156	64	98	186	272	96	288	118	68	55	292
MIN	57	60	53	55	53	77	60	57	15	37	37	32
AC-FT	6420	4880	3560	3950	5090	9050	4370	8130	3590	2550	2650	3500

CAL YR 1976 TOTAL 85456 MEAN 233 MAX 1730 MIN 53 AC-FT 169500
WTR YR 1977 TOTAL 29114 MEAN 79.8 MAX 292 MIN 15 AC-FT 57750

14337500 BIG BUTTE CREEK NEAR MCLEOD, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1970 to current year.

REMARKS.--In addition to water temperature record, water-quality samples were collected approximately biweekly.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 24.0°C June 27, July 15-17, 1973, Aug. 2, 1977; minimum, 0.0°C Feb. 28 to Mar. 2, 1971, Feb. 2, 1972, Jan. 8, 9, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 24.0°C Aug. 2; minimum, 0.0°C Jan. 8, 9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	DISSOLVED OXYGEN (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT								
14...	1000	56	--	--	--	--	3	.46
NOV								
23...	1200	147	6.0	115	7.2	12.0	3	1.2
DEC								
09...	1000	70	4.5	113	7.8	12.1	3	.57
22...	1100	58	--	133	7.8	12.6	1	.16
JAN								
03...	1445	81	4.5	127	8.0	10.9	4	.87
FEB								
01...	1300	60	5.5	126	8.4	12.9	1	.16
18...	1130	134	--	116	8.2	12.4	5	1.8
22...	1330	159	7.5	117	8.4	12.4	5	2.1
MAR								
03...	1230	246	5.0	--	--	--	15	10
08...	1400	176	8.5	119	8.3	12.1	4	1.9
09...	1030	338	6.0	--	--	--	44	40
21...	1400	153	10.5	115	8.2	11.2	3	1.2
APR								
12...	1330	79	12.5	133	8.2	10.6	6	1.3
25...	1500	66	--	122	8.1	9.6	3	.53
MAY								
11...	1200	118	10.0	118	8.2	11.6	13	4.1
23...	1200	321	10.0	--	--	--	28	24
25...	1330	168	12.0	100	8.6	--	--	--
JUN								
13...	1100	68	15.0	138	8.4	10.2	2	.37
JUL								
11...	1130	70	16.5	137	8.4	10.0	2	.38
22...	1500	42	21.0	134	8.7	9.7	4	.45
AUG								
15...	1400	42	20.0	132	8.6	10.3	2	.23
29...	1600	43	18.0	124	8.9	10.1	3	.35
SEP								
13...	1500	37	17.0	120	8.6	10.8	2	.20

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT				
14...	1000	57	4	82
FEB				
22...	1400	159	5	77
MAR				
03...	1230	246	15	74
09...	1040	338	49	88
MAY				
11...	1209	118	13	85
23...	1205	321	28	89
JUN				
13...	1200	68	2	94

14337500 BIG BUTTE CREEK NEAR MCLEOD, OR--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTORER		NOVEMBER		DECEMBER		JANUARY		FEPRUARY		MARCH	
1	16.5	12.5	11.5	9.5	5.0	2.5	3.5	2.0	6.5	4.0	7.0	5.5
2	14.5	12.5	11.0	9.5	4.5	2.5	4.0	3.5	5.5	2.5	6.0	5.0
3	14.0	10.5	10.5	8.5	5.0	2.5	4.5	3.5	5.0	2.0	6.5	4.5
4	13.0	9.0	10.0	7.5	5.0	3.5	5.0	3.5	5.5	2.5	8.0	5.0
5	13.5	9.0	8.5	6.5	4.5	2.5	4.5	2.0	5.5	3.5	8.5	5.0
6	14.5	10.0	10.0	7.0	4.5	2.5	2.5	0.5	7.0	5.0	7.5	5.5
7	14.5	10.5	9.5	7.0	4.5	2.5	3.0	1.0	6.5	4.0	8.0	6.5
8	15.0	10.5	9.5	7.5	5.5	3.5	2.0	0.0	8.0	5.5	8.5	6.5
9	14.0	10.0	9.0	7.0	5.5	4.5	2.0	0.0	8.5	5.5	7.5	6.0
10	13.5	10.0	9.5	8.0	5.0	4.0	4.5	1.5	8.0	5.5	8.0	5.0
11	13.5	9.5	9.5	7.5	4.5	2.5	5.0	4.0	8.0	5.0	7.5	5.0
12	13.0	9.0	9.5	7.5	4.0	2.5	5.0	3.5	8.5	5.0	7.5	5.5
13	12.5	8.5	8.0	6.0	4.5	3.0	5.0	4.5	9.0	5.5	6.5	5.0
14	12.5	8.5	8.5	7.5	4.5	2.5	5.5	4.0	8.5	5.0	7.5	5.0
15	12.0	8.0	10.0	8.5	4.5	3.0	4.0	2.5	8.5	5.0	7.0	5.5
16	11.0	8.0	11.5	10.0	4.5	3.0	4.0	2.5	9.0	5.0	9.0	4.5
17	10.5	7.5	10.0	9.5	4.0	2.5	4.0	2.0	10.0	6.5	8.0	5.5
18	10.0	6.5	10.0	9.5	3.0	1.5	5.0	2.5	8.0	5.0	7.5	6.0
19	10.0	6.5	9.5	7.0	3.0	0.5	5.0	3.0	8.5	4.5	9.0	7.0
20	10.0	7.0	7.5	5.5	3.0	0.5	5.0	2.5	8.0	6.0	10.0	6.0
21	10.0	7.0	8.0	6.0	3.0	1.0	6.0	4.0	7.5	6.0	10.5	6.0
22	10.0	7.0	7.5	5.5	4.0	2.0	5.5	4.0	7.5	6.0	11.5	6.5
23	9.5	7.0	7.0	5.0	5.0	3.0	5.0	2.5	6.5	5.5	9.5	7.5
24	8.0	7.0	6.5	4.5	3.0	1.5	4.5	2.5	7.5	5.0	9.0	6.5
25	9.5	8.0	7.5	5.5	4.5	2.5	4.0	1.5	7.0	6.0	10.0	5.0
26	9.5	7.5	6.0	3.5	4.5	4.0	4.0	1.0	7.5	6.0	11.0	5.5
27	9.0	6.5	4.0	2.0	5.0	4.0	4.5	1.0	9.0	6.5	9.5	7.0
28	8.5	6.0	4.0	1.5	4.5	3.0	4.5	1.5	8.0	6.5	9.5	5.5
29	9.0	7.5	4.5	2.0	4.5	3.5	4.5	1.5	---	---	8.5	5.5
30	10.0	8.5	5.0	2.5	5.0	3.5	4.5	1.5	---	---	10.0	5.5
31	10.0	9.0	---	---	4.0	2.0	6.5	4.0	---	---	7.5	6.0
MONTH	16.5	6.0	11.5	1.5	5.5	0.5	6.5	0.0	10.0	2.0	11.5	4.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMRER	
1	10.5	6.5	13.0	11.0	17.0	13.5	21.0	17.0	21.5	17.0	18.5	12.5
2	11.5	6.5	14.5	10.0	17.0	10.5	21.5	15.0	24.0	17.5	19.0	13.0
3	12.5	6.5	13.0	10.5	15.0	12.0	17.5	14.5	23.0	17.0	19.5	14.0
4	14.0	7.5	12.0	9.0	19.5	12.0	17.0	14.0	23.0	16.5	20.5	14.5
5	14.0	7.5	10.0	8.5	21.5	14.0	17.5	11.5	22.0	15.5	20.5	15.0
6	14.5	8.0	12.0	7.0	21.0	15.5	20.0	12.0	22.0	15.5	20.0	13.5
7	14.5	8.0	12.0	8.5	20.5	16.0	21.5	14.0	21.0	17.0	19.0	13.5
8	12.0	10.0	14.0	7.0	20.5	15.5	21.5	15.0	21.0	15.5	18.0	12.5
9	10.5	7.5	11.5	9.0	19.0	14.0	21.0	15.0	21.0	16.0	17.5	12.0
10	12.0	6.0	11.0	9.5	16.5	14.0	21.0	13.5	22.0	15.5	18.0	12.0
11	14.5	8.5	12.0	8.5	16.5	13.5	22.0	14.5	22.5	16.0	18.0	12.5
12	14.5	8.0	15.0	9.5	19.5	12.0	21.5	16.0	22.0	16.5	18.0	12.5
13	13.5	10.0	14.5	9.0	19.0	14.5	21.0	14.0	21.5	16.5	18.0	12.5
14	13.5	7.0	13.5	10.5	20.5	14.5	21.5	14.5	21.5	16.0	18.0	13.5
15	14.0	8.5	12.5	9.5	20.5	13.5	22.5	15.5	22.0	16.0	15.0	12.5
16	15.0	10.5	12.5	8.5	21.0	13.5	22.5	16.0	22.5	16.0	13.5	11.0
17	13.5	7.5	12.5	9.0	17.5	15.0	22.0	15.5	21.5	16.5	13.0	11.5
18	13.5	7.0	11.0	8.5	18.5	14.0	21.0	16.5	21.5	17.0	14.0	12.0
19	14.0	7.0	16.0	8.5	20.0	14.5	23.0	16.5	21.0	15.5	15.0	12.0
20	13.5	8.5	17.5	10.5	17.0	14.0	23.0	16.5	19.0	15.5	14.5	12.0
21	15.5	10.0	17.0	12.5	20.5	12.5	23.0	16.5	20.5	15.0	15.0	11.0
22	13.5	10.0	14.0	10.5	22.0	15.0	23.0	16.5	20.5	14.5	14.0	9.0
23	12.5	10.0	12.5	9.5	21.5	15.5	23.5	16.5	20.0	14.5	11.5	10.0
24	13.5	9.5	15.0	10.0	22.0	15.0	23.0	17.0	20.0	16.5	14.0	10.0
25	12.0	10.0	13.5	10.0	22.5	15.5	22.5	17.0	16.5	14.0	14.0	11.5
26	15.5	9.0	13.5	11.0	22.5	16.0	23.0	16.0	16.0	13.0	16.0	11.5
27	16.0	9.0	13.5	8.5	22.5	16.0	22.5	16.0	16.5	13.0	14.0	12.0
28	13.0	10.5	15.5	9.0	22.5	15.0	22.0	16.0	18.0	14.5	12.5	11.5
29	15.0	11.0	16.5	10.0	23.0	16.0	21.5	15.0	19.5	14.0	13.0	11.0
30	15.0	10.5	16.5	10.5	22.0	16.0	22.5	15.0	20.0	15.0	12.5	9.0
31	---	---	19.0	11.5	---	---	22.0	15.0	19.0	13.5	---	---
MONTH	16.0	6.0	19.0	7.0	23.0	10.5	23.5	11.5	24.0	13.0	20.5	9.0

14337600 ROGUE RIVER NEAR MCLEOD, OR

LOCATION.--Lat 42°39'20", long 122°42'50", in SW¼ sec.33, T.33 S., R.1 E., Jackson County, Hydrologic Unit 17100307, on left bank at Obstinate J Ranch, 1.3 mi (2.1 km) downstream from Big Butte Creek, 1.6 mi (2.6 km) southwest of McLeod, and at mile 154.0 (247.8 km).

DRAINAGE AREA.--938 mi^2 (2,429 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,489.08 ft (453.872 m) above mean sea level.

REMARKS.--Water-discharge records good. Flow regulated since February 1977 by Lost Creek Lake (see station 14335040). Diversions for irrigation above station; most of flow of Big Butte Creek is diverted near Butte Falls.

AVERAGE DISCHARGE.--12 years, 2,176 ft^3/s (61.62 m^3/s), 1,577,000 acre-ft/yr (1.94 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft^3/s (850 m^3/s) Mar. 3, 1972, gage height, 12.24 ft (3.731 m); minimum, 468 ft^3/s (13.3 m^3/s) Feb. 18, 1977, result of closure of Lost Creek dam, minimum prior to that time, 604 ft^3/s (17.1 m^3/s) Sept. 5, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1928, 20.35 ft (6.203 m) Dec. 22, 1964, from floodmarks, discharge, 74,300 ft^3/s (2,100 m^3/s), from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,570 ft^3/s (44.5 m^3/s) Mar. 28, gage height, 2.07 ft (0.631 m); minimum, 468 ft^3/s (13.3 m^3/s) Feb. 18, result of closure of Lost Creek dam.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1220	1380	1090	1040	1000	857	787	884	838	1050	1040	1050
2	1430	1320	1090	1150	1000	871	775	877	825	1050	1030	1040
3	1320	1240	1060	1130	1000	939	769	845	819	1050	1050	1040
4	1260	1190	1090	1090	1000	897	769	857	819	1050	1080	1030
5	1250	1160	1090	1050	1000	884	775	845	806	1050	1080	1060
6	1240	1160	1060	981	1000	884	775	845	838	1060	1050	1050
7	1220	1150	1060	1050	1000	890	769	832	871	1070	1050	1050
8	1210	1140	1090	1020	1000	910	740	819	945	1050	1050	1030
9	1200	1140	1130	993	1000	1020	745	813	1040	1060	1060	1100
10	1200	1140	1060	1080	1000	981	740	845	1050	1050	1050	1130
11	1200	1140	1080	1160	1000	963	735	890	1050	1050	1050	1120
12	1200	1140	1090	1120	1000	981	720	871	1050	1050	1040	1130
13	1150	1120	1080	1100	1000	975	715	845	1050	1070	1040	1140
14	1200	1240	1060	1060	1000	963	715	832	1050	1060	1040	1140
15	1180	1270	1050	1050	1000	957	710	845	1050	1120	1040	1150
16	1220	1330	1060	1050	1000	951	715	838	1040	1250	1040	1150
17	1270	1220	1070	1040	1000	951	715	832	1040	1250	1040	1150
18	1240	1190	1060	1040	769	951	710	832	1040	1150	1050	1140
19	1270	1170	1050	1040	609	963	705	832	1040	1080	1040	1150
20	1270	1160	1050	1030	655	969	715	813	1040	1050	1050	1140
21	1260	1140	1050	1020	725	963	735	806	1040	1060	1030	1160
22	1260	1150	1050	1020	750	945	775	825	1050	1070	1040	1160
23	1250	1210	1050	1020	762	922	813	987	1050	1080	1050	1160
24	1260	1210	1050	1020	787	934	806	939	1070	1060	1050	1160
25	1380	1120	1050	1010	781	934	800	890	1140	1050	1050	1150
26	1400	1120	1100	1010	794	928	800	963	1150	1050	1050	1140
27	1310	1100	1080	1000	813	934	800	939	1090	1050	1050	1140
28	1290	1090	1050	1000	851	981	813	897	1040	1050	1050	1350
29	1290	1090	1050	1000	---	813	851	877	1050	1050	1050	1380
30	1290	1090	1050	1000	---	806	890	857	1050	1050	1050	1220
31	1290	---	1050	1000	---	794	---	845	---	1070	1050	---
TOTAL	39030	35320	33100	32374	25296	28711	22882	26717	30031	33310	32490	34010
MEAN	1259	1177	1068	1044	903	926	763	862	1001	1075	1048	1134
MAX	1430	1380	1130	1160	1000	1020	890	987	1150	1250	1080	1380
MIN	1150	1090	1050	981	609	794	705	806	806	1050	1030	1030
AC-FT	77420	70060	65650	64210	50170	56950	45390	52990	59570	66070	64440	67460

CAL YR 1976 TOTAL 776760 MEAN 2122 MAX 7180 MIN 1050 AC-FT 1541000
WTR YR 1977 TOTAL 373271 MEAN 1023 MAX 1430 MIN 609 AC-FT 740400

14337600 ROGUE RIVER NEAR MCLEOD, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1970 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 18.0°C July 17, 18, Aug. 7, 1973; minimum, 0.5°C Jan. 3-5, 14, 15, 1971.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 16.0°C Aug. 15, 16, 23; minimum recorded, 1.0°C Jan. 6, but may have been lower during period of no record in January.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.0	10.0	8.5	7.5	---	---	3.0	2.5	---	---	6.0	5.0
2	11.0	10.0	9.0	8.0	---	---	3.5	3.0	---	---	5.5	5.0
3	10.5	8.5	8.5	7.5	---	---	3.5	2.5	---	---	6.0	5.0
4	10.0	7.5	8.0	7.0	4.5	3.5	4.0	3.0	---	---	6.5	5.0
5	10.0	7.5	7.0	6.5	4.0	3.0	3.5	2.0	---	---	6.5	5.0
6	10.5	8.0	8.0	6.5	4.0	3.0	3.5	1.0	---	---	6.0	5.0
7	11.0	8.5	7.5	6.5	4.0	3.0	4.0	---	---	---	6.0	5.5
8	11.0	9.0	8.0	6.5	4.5	3.5	---	---	---	---	6.5	5.0
9	10.5	8.5	7.5	6.5	5.0	4.0	---	---	---	---	6.5	5.0
10	10.5	8.0	7.5	6.5	4.0	3.5	---	---	---	---	7.0	5.0
11	10.0	8.0	8.0	6.5	4.0	3.0	---	---	---	---	6.5	5.5
12	9.5	7.5	7.5	6.5	3.5	2.5	---	---	---	---	6.5	5.5
13	9.5	7.0	6.5	5.5	4.0	3.0	---	---	---	---	6.0	5.0
14	9.0	7.0	6.5	6.0	4.0	2.5	---	---	---	---	6.5	5.0
15	8.5	6.5	7.5	6.5	4.0	3.0	---	---	---	---	6.0	5.5
16	8.5	6.5	8.5	7.5	4.0	3.0	---	---	---	---	7.0	5.0
17	8.5	6.5	8.0	7.5	4.0	3.0	---	---	---	---	6.5	5.0
18	8.0	6.0	7.5	7.5	3.0	2.0	5.0	3.5	5.5	---	6.5	5.5
19	8.0	6.0	7.0	5.5	3.0	1.5	5.0	4.0	6.0	4.0	7.0	5.5
20	8.0	6.0	6.0	5.0	2.5	1.5	5.0	3.5	5.5	4.5	7.5	5.5
21	8.0	6.0	6.0	5.0	2.5	1.5	5.0	3.5	6.0	5.0	8.0	5.5
22	8.0	6.0	6.0	5.0	3.5	2.0	5.0	4.0	6.0	5.0	8.0	5.5
23	7.5	6.0	6.0	5.0	4.5	3.0	5.5	4.0	5.5	5.0	6.5	6.0
24	6.5	6.0	5.5	4.5	3.0	2.5	5.0	4.0	6.0	4.5	7.5	5.5
25	7.5	6.5	6.0	5.0	3.5	2.5	5.5	4.0	5.5	4.5	8.0	6.0
26	7.5	6.0	5.0	3.5	3.5	3.5	5.5	4.0	5.5	4.5	7.5	5.5
27	7.0	5.5	3.5	2.5	4.0	3.5	5.0	4.0	6.5	5.0	7.0	6.0
28	7.0	5.5	3.5	2.0	3.5	3.0	5.0	3.5	6.0	5.0	7.0	5.5
29	7.0	6.5	---	---	3.5	3.0	---	---	---	---	7.5	6.5
30	8.0	6.5	---	---	4.5	3.5	---	---	---	---	8.5	6.5
31	8.0	7.0	---	---	3.5	2.5	---	---	---	---	7.5	6.5
MONTH	12.0	5.5	9.0	2.0	5.0	1.5	5.5	1.0	6.5	4.0	8.5	5.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	6.0	9.5	8.5	11.5	9.0	12.5	10.5	14.5	12.5	15.5	13.5
2	9.0	6.0	11.0	8.5	11.5	8.5	12.5	10.5	15.0	13.0	15.5	13.5
3	9.5	6.5	10.0	8.5	11.0	8.5	11.5	10.5	15.0	12.5	15.5	13.5
4	10.0	7.0	9.5	8.0	12.5	9.0	11.5	10.5	15.0	12.5	15.5	14.0
5	10.0	7.0	9.0	8.0	12.5	9.0	12.5	10.0	15.5	12.5	15.5	13.5
6	10.0	7.0	10.5	7.5	12.5	9.0	12.5	10.5	15.5	13.0	15.5	13.5
7	10.5	7.5	10.0	7.5	12.5	9.5	13.0	10.5	15.0	13.0	15.5	13.5
8	9.0	7.5	10.5	7.0	12.0	9.5	12.5	10.5	15.0	13.0	15.0	13.5
9	8.5	7.5	9.5	7.5	11.5	9.0	12.5	10.5	15.0	13.0	15.0	13.5
10	9.5	7.0	9.0	8.0	11.0	9.0	13.0	11.0	15.5	13.0	15.0	13.5
11	10.0	7.5	10.0	8.0	11.0	9.5	13.0	11.0	15.5	13.0	15.5	13.5
12	10.0	7.0	10.5	8.0	12.0	9.0	13.0	11.0	15.5	13.0	15.0	13.5
13	10.0	7.5	10.5	7.5	12.0	9.5	13.0	11.0	15.5	13.0	15.0	13.5
14	10.0	7.0	10.0	8.5	12.0	9.5	13.5	11.5	15.5	13.5	15.0	13.0
15	10.0	7.5	10.0	8.0	12.0	9.0	13.5	11.5	16.0	13.5	14.0	13.0
16	10.0	7.5	10.0	7.5	12.0	9.0	14.0	11.5	16.0	13.5	14.5	13.5
17	10.0	6.5	10.0	7.5	10.5	9.5	14.0	11.5	15.5	13.5	14.0	13.5
18	10.0	6.5	9.5	7.5	11.5	10.0	13.0	12.0	15.5	13.5	14.5	13.5
19	10.0	6.5	11.0	8.0	12.0	9.5	14.0	12.0	15.5	13.5	14.5	13.0
20	9.5	7.0	11.5	8.0	11.0	9.5	14.0	12.0	15.0	13.5	14.0	13.0
21	10.5	7.5	11.5	8.5	12.0	9.5	14.0	12.0	15.5	13.5	14.0	13.0
22	8.5	7.5	9.0	8.0	12.0	10.0	14.5	12.0	15.5	13.5	14.0	12.5
23	9.0	7.5	10.0	8.5	12.0	9.5	14.5	12.0	16.0	13.5	13.0	11.5
24	9.5	7.5	11.0	8.5	12.5	9.5	14.5	12.0	15.5	14.0	12.0	11.0
25	9.0	7.5	10.5	8.5	12.0	10.0	14.5	12.0	14.5	13.5	12.0	11.0
26	10.0	7.5	11.0	9.0	12.0	10.0	14.5	12.5	14.5	13.5	12.5	11.0
27	10.0	7.5	11.0	8.0	12.5	10.5	14.5	12.5	15.0	13.5	11.5	11.0
28	9.0	7.5	11.5	7.5	12.5	10.5	14.5	12.5	15.0	14.0	12.0	11.0
29	10.5	7.5	11.5	8.0	12.5	10.5	14.5	12.0	15.5	14.0	12.0	11.0
30	10.5	8.5	11.5	8.5	12.0	10.5	15.0	12.5	15.5	13.5	12.0	10.5
31	---	---	12.0	9.0	---	---	15.0	12.5	15.0	13.5	---	---
MONTH	10.5	6.0	12.0	7.0	12.5	8.5	15.0	10.0	16.0	12.5	15.5	10.5

14337800 ELK CREEK NEAR CASCADE GORGE, OR

LOCATION.--Lat 42°46'25", long 122°40'15", in NW¼ sec.23, T.32 S., R.1 E., Jackson County, Hydrologic Unit 17100307, on right bank 0.1 mi (0.2 km) downstream from Sugarpine Creek, 6.5 mi (10.5 km) northwest of town of Cascade Gorge, and at mile 10.7 (17.2 km).

DRAINAGE AREA.--78.8 mi^2 (204.1 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,820 ft (555 m), from topographic map.

REMARKS.--Water-discharge records good. No regulation. Many diversions above station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,780 ft^3/s (192 m^3/s) Jan. 15, 1974, gage height, 8.9 ft (2.71 m), from floodmark; minimum daily, 0.72 ft^3/s (0.020 m^3/s) Aug. 24, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 231 ft^3/s (6.54 m^3/s) May 23, gage height, 3.68 ft (1.122 m), no peak above base of 1,600 ft^3/s (45.3 m^3/s); minimum, 1.2 ft^3/s (0.034 m^3/s) Aug. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	11	7.6	10	9.5	25	84	43	58	12	2.5	4.6
2	11	12	7.3	12	8.7	15	92	77	53	16	2.4	3.9
3	8.3	9.8	7.3	12	8.3	18	77	76	48	12	2.4	3.6
4	7.6	9.1	7.3	11	8.0	42	92	100	44	10	2.2	3.6
5	7.6	8.7	7.6	10	8.0	48	123	150	39	9.5	2.2	3.6
6	7.3	8.7	7.6	9.4	8.3	53	126	121	36	9.1	2.2	3.4
7	6.9	8.0	7.6	9.0	8.3	63	130	100	33	8.7	2.4	3.2
8	6.3	8.0	8.0	8.7	8.7	135	145	83	28	8.0	2.5	3.0
9	6.3	8.0	11	9.4	9.5	159	112	76	27	7.6	2.2	2.7
10	6.0	8.0	9.1	9.8	9.1	108	84	88	25	7.3	2.2	2.7
11	6.0	8.0	8.7	11	9.1	84	72	119	27	6.9	1.9	2.7
12	6.3	8.0	9.8	15	9.1	86	67	108	25	6.6	1.6	2.7
13	6.0	7.6	8.3	14	8.7	72	72	90	22	6.6	1.3	2.5
14	5.7	12	9.1	14	8.7	54	67	76	20	6.3	1.6	2.4
15	5.7	18	7.6	13	8.0	43	61	67	18	6.0	1.6	2.2
16	5.7	17	7.6	14	7.6	37	61	76	17	5.7	1.6	3.0
17	5.4	12	8.0	12	7.3	35	55	117	17	5.4	1.7	3.4
18	5.7	11	7.6	12	7.0	33	49	126	17	5.4	1.9	4.6
19	5.7	10	7.6	13	7.0	44	45	106	15	5.4	1.5	5.7
20	5.7	9.5	7.6	14	6.6	64	43	92	14	5.1	1.6	6.6
21	5.4	9.5	8.0	14	10	60	42	81	15	4.6	2.2	5.7
22	5.4	9.1	8.0	14	15	67	41	83	14	4.6	2.4	4.6
23	5.4	8.7	7.6	13	14	96	41	188	12	4.3	1.9	4.6
24	6.3	8.3	8.3	12	19	110	40	194	12	3.9	5.1	9.1
25	11	8.0	7.6	9.4	12	106	41	145	11	3.6	8.7	6.9
26	12	8.0	8.0	9.8	14	81	41	150	10	3.9	11	6.0
27	9.1	8.3	8.3	9.8	27	86	37	128	9.8	3.6	6.9	5.4
28	8.0	8.0	8.0	9.4	38	90	35	108	9.5	3.4	6.3	60
29	8.0	8.0	7.3	9.1	---	76	34	92	9.1	3.2	6.9	51
30	8.3	7.6	6.9	8.7	---	63	35	79	8.7	3.2	5.7	20
31	9.1	---	7.6	9.1	---	55	---	67	---	2.5	5.1	---
TOTAL	218.9	287.9	247.9	351.6	314.5	2108	2044	3206	694.1	200.4	101.7	243.4
MEAN	7.06	9.60	8.00	11.3	11.2	68.0	68.1	103	23.1	6.46	3.28	8.11
MAX	12	18	11	15	38	159	145	194	58	16	11	60
MIN	5.4	7.6	6.9	8.7	6.6	15	34	43	8.7	2.5	1.3	2.2
CFSM	.09	.12	.10	.14	.14	.86	.86	1.31	.29	.08	.04	.10
IN.	.10	.14	.12	.17	.15	1.00	.96	1.51	.33	.09	.05	.11
AC-FT	434	571	492	697	624	4180	4050	6360	1380	397	202	483

CAL YR 1976 TOTAL 36729.5 MEAN 100 MAX 1690 MIN 5.4 CFSM 1.27 IN 17.34 AC-FT 72850
WTR YR 1977 TOTAL 10018.4 MEAN 27.4 MAX 194 MIN 1.3 CFSM .35 IN 4.73 AC-FT 19870

14337800 ELK CREEK NEAR CASCADE GORGE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1973 to October 1976, August to September 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum recorded, 28.5°C July 29, 30, 1973; minimum, 1.0°C Dec. 31, 1974, Jan. 2, 1975, Feb. 4-7, 10, 11, 1976.

EXTREMES FOR OCTOBER, AUGUST TO SEPTEMBER.--
WATER TEMPERATURES: Maximum, 27.0°C Aug. 19; minimum, 5.5°C Oct. 18, 19.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.0	14.0										
2	16.5	13.0										
3	16.0	11.0										
4	15.0	9.0										
5	15.0	9.0										
6	16.5	10.0										
7	17.0	10.5										
8	17.0	11.0										
9	15.5	10.0										
10	15.5	9.5										
11	14.5	9.0										
12	14.5	8.5										
13	14.0	7.5										
14	13.5	7.5										
15	13.0	7.0										
16	12.5	7.0										
17	12.0	6.5										
18	11.0	5.5										
19	---	5.5										
20	---	---										
21	---	---										
22	---	---										
23	---	---										
24	---	---										
25	---	---										
26	---	---										
27	---	---										
28	---	---										
29	---	---										
30	---	---										
31	---	---										
MONTH	19.0	5.5										

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1									---	---	21.5	12.5
2									---	---	22.5	13.5
3									---	---	23.5	15.5
4									---	---	24.5	15.5
5									---	---	24.5	16.5
6									---	---	23.5	14.0
7									---	---	20.5	14.0
8									---	---	21.5	12.5
9									---	---	21.0	11.5
10									---	---	22.0	12.5
11									---	---	22.0	13.0
12									---	---	22.0	12.5
13									---	---	21.5	13.0
14									---	---	21.5	14.5
15									---	---	15.0	13.0
16									---	---	15.5	12.0
17									---	---	15.0	12.5
18									26.0	---	17.0	13.0
19									27.0	16.0	17.0	17.0
20									23.0	16.0	17.0	17.0
21									26.5	17.5	17.0	17.0
22									25.0	14.5	17.0	8.5
23									24.5	15.0	13.0	10.5
24									21.5	17.0	14.0	10.5
25									17.0	15.0	16.0	11.5
26									18.0	14.5	17.0	12.0
27									19.0	13.5	14.5	13.0
28									20.0	15.5	13.0	11.5
29									22.0	14.5	13.5	10.5
30									22.5	16.0	13.5	8.5
31									21.0	13.5	---	---
MONTH									27.0	13.5	24.5	8.5

14338000 ELK CREEK NEAR TRAIL, OR

LOCATION.--Lat 42°39'50", long 122°44'50", in SW¼ sec.30, T.33 S., R.1 E., Jackson County, Hydrologic Unit 17100307, on right bank 3.3 mi (5.3 km) northeast of Trail and at mile 0.4 (0.6 km).

DRAINAGE AREA.--133 mi² (344 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year. Prior to March 1946 monthly discharge only, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 1,456.56 ft (443.959 m) above mean sea level. Prior to July 5, 1946, nonrecording gage at various sites within 1.0 mi (1.6 km) of present site at different datums. July 5, 1946, to June 22, 1950, nonrecording gage, and June 23, 1950, to May 23, 1954, water-stage recorder, at site 0.3 mi (0.5 km) upstream at datum 12.14 ft (3.700 m) higher.

REMARKS.--Water-discharge records fair. No regulation. Diversions above station for irrigation.

AVERAGE DISCHARGE.--32 years, 233 ft³/s (6.599 m³/s), 168,800 acre-ft/yr (208 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,200 ft³/s (544 m³/s) Dec. 22, 1964, gage height, 18.84 ft (5.742 m), from rating curve extended above 4,700 ft³/s (133 m³/s) on basis of slope-area measurement of peak flow; minimum, 0.40 ft³/s (0.011 m³/s) Aug. 16, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 331 ft³/s (9.37 m³/s) May 23, gage height, 3.98 ft (1.213 m), no peak above base of 2,700 ft³/s (76.5 m³/s); minimum, 1.5 ft³/s (0.042 m³/s) Aug. 12, 13, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	13	12	16	16	109	160	48	81	11	2.2	5.1
2	17	15	12	20	15	83	180	107	71	14	2.4	4.7
3	14	14	12	23	14	101	136	101	63	10	2.2	4.1
4	12	13	12	20	15	101	141	141	57	8.6	1.8	3.8
5	13	12	12	18	15	88	186	226	49	7.7	2.2	3.5
6	11	12	12	17	14	97	180	199	41	7.7	2.0	3.5
7	10	12	12	16	15	99	177	160	37	6.5	2.4	3.2
8	9.9	12	12	15	15	219	196	130	35	5.8	2.9	3.2
9	9.4	12	16	15	15	269	163	111	35	5.8	3.5	3.8
10	9.0	12	15	18	15	205	121	115	35	5.8	2.9	3.8
11	9.0	11	14	18	15	150	97	166	38	5.4	2.2	3.5
12	9.0	11	13	26	15	141	86	155	33	5.1	1.8	3.5
13	9.0	11	14	26	15	128	90	130	29	4.7	2.0	3.2
14	9.0	14	13	26	15	94	86	107	26	5.1	2.4	3.2
15	8.6	20	13	23	14	72	77	94	23	4.4	2.2	2.9
16	8.1	23	13	20	14	59	74	105	22	4.4	2.4	3.5
17	8.1	18	12	19	14	52	68	199	21	4.1	2.4	3.5
18	8.1	15	16	19	14	50	61	209	22	3.8	2.2	5.1
19	8.1	14	12	20	14	60	55	163	20	4.1	2.0	6.5
20	7.7	14	12	22	14	103	51	134	20	4.1	2.0	7.7
21	8.1	14	13	23	17	97	47	113	20	3.8	1.8	7.7
22	8.1	13	14	23	33	105	45	109	18	3.2	2.2	6.9
23	8.6	13	14	21	35	148	44	251	17	2.9	2.4	6.1
24	9.0	12	11	19	41	174	44	306	16	2.9	4.1	7.7
25	11	12	14	18	38	183	44	236	15	3.2	5.8	9.4
26	14	12	14	20	38	141	47	222	14	2.9	8.1	7.7
27	12	12	14	23	51	136	39	199	14	2.4	9.4	6.9
28	11	12	14	19	101	150	37	163	13	2.4	7.7	65
29	11	12	13	18	---	132	35	136	12	2.2	7.3	128
30	12	12	13	17	---	109	35	115	12	2.2	6.5	41
31	12	---	13	17	---	95	---	95	---	2.2	5.4	---
TOTAL	316.7	402	406	615	647	3750	2802	4745	909	158.4	106.8	367.7
MEAN	10.2	13.4	13.1	19.8	23.1	121	93.4	153	30.3	5.11	3.45	12.3
MAX	17	23	16	26	101	269	196	306	81	14	9.4	128
MIN	7.7	11	11	15	14	50	35	48	12	2.2	1.8	2.9
AC-FT	628	797	805	1220	1280	7440	5560	9410	1800	314	212	729

CAL YR 1976 TOTAL 55883.0 MEAN 153 MAX 2730 MIN 5.8 AC-FT 110800
WTR YR 1977 TOTAL 15225.6 MEAN 41.7 MAX 306 MIN 1.8 AC-FT 30200

14338000 ELK CREEK NEAR TRAIL, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June 1973 to current year.
TURBIDITY: January 1973 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 30.0°C July 26, 27, 1975; minimum recorded, 0.0°C many days during December 1976 to February 1977.
TURBIDITY: Maximum recorded, 1,000 JTU (upper limit of meter) Sept. 14, 1975, but may have been higher; minimum, 0 JTU at times.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 29.5°C Aug. 3; minimum recorded, 0.0°C many days during December to February.
TURBIDITY: Maximum, 200 JTU Oct. 2; minimum, 0 JTU many days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	DISSOLVED OXYGEN (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT								
13...	1250	9.0	11.0	--	--	--	3	.07
NOV								
23...	1300	13	11.0	204	7.0	11.9	1	.04
DEC								
10...	1335	15	2.4	158	7.8	13.9	0	.00
22...	1210	17	.2	207	7.7	13.2	1	.05
JAN								
13...	1400	26	2.8	180	7.6	12.5	1	.07
FEB								
01...	1330	16	4.1	185	7.9	13.0	1	.04
22...	1430	34	7.8	189	8.1	12.1	8	.73
MAR								
03...	1300	95	4.0	--	--	--	8	2.1
09...	1000	301	5.2	91	7.5	12.2	46	37
22...	1400	111	10.5	90	8.0	10.5	8	2.4
APR								
14...	1600	83	12.9	95	7.9	10.0	6	1.3
27...	1100	41	12.3	92	7.8	10.4	3	.33
MAY								
11...	1230	171	10.6	88	7.7	11.4	10	4.6
23...	1005	236	--	360	--	--	14	8.9
25...	1400	229	124	74	8.2	--	--	--
JUN								
07...	0930	38	19.2	106	7.7	9.2	2	.21
JUL								
11...	1300	5.4	24.0	171	8.3	9.9	1	.01
22...	1200	3.2	23.6	177	7.7	9.4	3	.03
AUG								
15...	1430	2.4	31.2	203	9.1	11.7	1	.01
30...	1600	6.2	24.8	187	9.0	10.1	1	.02
SEP								
13...	1530	2.9	22.8	194	9.1	12.8	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT				
13...	1250	9.0	3	84
FEB				
22...	1440	34	8	90
MAR				
03...	1300	95	8	74
09...	1000	301	46	79
22...	1410	111	8	62

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
MAY				
11...	1250	171	11	89
23...	1005	236	14	96
JUN				
07...	1030	38	2	100

14338000 ELK CREEK NEAR TRAIL, OR--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.5	16.5	14.0	12.0	3.5	---	1.0	0.0	5.5	2.5	6.0	4.0
2	19.0	15.5	15.0	12.0	3.0	0.5	1.5	1.0	4.5	0.5	5.0	3.5
3	18.0	13.0	14.5	12.0	3.5	0.5	2.5	1.0	4.0	0.0	5.5	2.5
4	17.0	11.5	13.0	10.5	3.5	1.0	3.5	1.5	4.5	0.5	7.5	3.5
5	17.5	12.0	10.5	8.5	2.5	0.5	2.5	0.5	4.5	1.5	8.0	3.5
6	18.5	13.0	11.0	8.0	2.5	0.5	0.5	0.0	6.5	2.5	6.0	4.0
7	19.0	13.5	10.5	7.5	3.0	0.0	0.0	0.0	5.5	2.5	6.0	5.0
8	19.0	14.0	10.5	7.5	3.5	1.0	0.0	0.0	7.5	4.5	7.0	5.0
9	18.0	13.0	10.0	7.5	4.5	3.0	0.0	0.0	7.5	4.5	6.5	4.5
10	17.5	12.5	10.5	8.5	3.5	2.0	0.0	0.0	8.0	5.0	8.0	3.0
11	17.0	12.0	11.0	8.0	3.0	1.0	1.0	0.0	7.5	4.0	7.0	3.5
12	17.0	11.5	11.0	8.5	2.0	0.5	2.5	0.5	8.5	4.0	7.5	5.0
13	16.0	10.5	9.0	6.5	---	---	3.0	2.0	9.0	5.5	6.0	4.0
14	15.5	10.5	10.0	8.0	---	---	4.0	2.0	9.0	4.5	7.0	3.5
15	15.0	9.5	11.0	9.0	---	---	3.5	1.5	9.0	5.0	6.0	4.0
16	14.5	9.5	12.5	10.5	---	---	3.0	1.5	9.0	5.0	8.5	3.0
17	14.0	8.5	12.0	11.0	---	---	2.5	0.5	10.0	6.0	7.5	4.5
18	13.0	8.0	11.5	11.0	---	---	3.0	0.0	9.0	4.0	7.0	5.0
19	13.0	8.0	11.0	9.0	---	---	2.5	0.5	9.0	4.0	8.5	6.0
20	13.0	8.0	8.5	6.5	---	---	3.0	0.0	7.5	5.5	10.0	6.0
21	13.0	8.0	8.5	6.5	---	---	4.0	1.5	6.5	5.0	10.5	4.5
22	12.5	8.5	8.0	5.5	0.0	0.0	4.0	1.5	7.5	5.0	11.0	5.5
23	12.0	8.0	7.0	4.5	0.5	0.0	3.5	0.5	5.5	4.0	9.0	6.5
24	10.5	8.0	6.0	4.0	0.0	0.0	3.0	0.0	6.5	3.5	7.5	4.5
25	11.5	8.5	7.0	4.5	0.5	0.0	2.0	0.0	6.5	4.5	8.5	4.0
26	12.0	8.5	---	3.5	1.5	0.5	1.5	0.0	7.0	4.5	10.0	4.5
27	11.5	7.0	---	---	3.0	1.5	1.5	0.0	8.0	5.5	8.0	6.0
28	10.5	7.0	---	---	2.5	1.5	2.0	0.0	7.0	5.5	7.5	4.0
29	10.5	9.0	---	---	2.5	1.5	2.0	0.0	---	---	7.0	4.0
30	12.0	9.5	---	---	3.0	1.0	2.0	0.0	---	---	9.0	4.0
31	12.5	10.5	---	---	1.5	0.0	5.0	1.5	---	---	6.5	4.5
MONTH	21.5	7.0	15.0	3.5	4.5	0.0	5.0	0.0	10.0	0.0	11.0	2.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	5.5	14.5	12.0	19.0	14.5	26.0	20.0	26.0	20.5	22.5	16.0
2	10.5	4.0	15.5	10.0	18.5	12.0	25.5	18.0	29.0	21.5	23.0	17.0
3	11.5	5.0	13.5	10.5	16.5	13.0	22.0	16.5	29.5	21.0	24.0	18.0
4	13.0	6.0	11.5	8.5	22.0	13.5	21.5	16.0	28.5	21.0	25.0	19.0
5	12.5	6.0	10.0	7.5	24.5	16.0	20.5	14.0	28.0	19.5	25.0	19.5
6	13.0	6.5	12.5	6.5	25.5	18.5	24.5	14.0	27.5	20.0	24.0	17.5
7	13.5	6.5	12.5	8.0	25.0	19.0	26.0	16.0	27.0	21.5	23.0	17.5
8	11.5	9.0	13.5	7.0	24.0	18.0	26.5	17.5	27.5	20.0	22.0	16.5
9	9.0	6.0	12.5	9.0	22.0	16.0	26.0	17.5	26.5	20.5	21.5	15.5
10	10.5	4.5	11.0	9.0	19.5	16.5	26.0	16.0	28.0	20.0	22.0	16.0
11	13.5	7.5	12.0	8.0	20.5	15.5	27.0	17.0	28.5	20.5	22.0	16.5
12	14.0	7.5	15.0	8.5	23.0	14.5	26.0	19.0	27.5	21.0	22.0	16.0
13	14.0	10.0	14.5	8.5	24.0	16.5	25.5	16.0	27.0	22.0	22.0	16.5
14	13.0	6.5	13.5	10.5	24.5	16.5	27.0	17.0	27.0	21.5	21.5	17.5
15	14.5	8.5	13.0	9.5	24.5	15.5	27.5	18.5	27.5	20.5	18.5	15.5
16	15.0	10.0	12.5	9.0	25.5	16.0	28.0	19.0	28.0	21.0	16.5	14.0
17	13.5	7.0	12.0	8.0	20.5	18.5	27.5	18.5	26.5	21.0	16.5	14.5
18	13.0	6.5	10.5	7.0	22.5	17.5	26.0	20.0	26.5	22.5	18.5	15.0
19	14.0	6.5	15.0	7.5	24.5	17.0	28.0	19.5	25.5	20.5	17.5	15.5
20	14.0	8.0	17.0	10.0	20.5	16.5	28.0	19.0	23.5	20.5	17.0	14.5
21	16.5	10.0	17.0	12.0	25.5	15.5	28.0	19.5	26.0	20.5	18.0	13.5
22	14.0	10.0	14.5	10.5	27.5	18.5	28.5	19.5	25.0	19.0	17.5	11.5
23	13.5	10.0	12.0	9.0	27.0	18.0	28.5	20.0	23.5	19.0	15.5	13.0
24	14.0	10.0	14.0	8.5	27.0	17.5	28.5	20.5	24.0	20.5	17.0	12.5
25	13.0	10.5	12.0	9.0	27.5	18.0	27.0	20.5	21.5	18.0	18.0	14.0
26	16.5	9.0	12.0	9.5	28.0	18.5	28.5	19.5	19.0	16.5	19.5	14.5
27	18.0	10.0	13.0	7.5	27.5	18.5	28.0	19.5	20.0	15.5	18.0	15.0
28	14.5	11.5	15.0	7.5	28.0	18.0	26.0	19.0	20.5	17.0	15.5	13.5
29	17.0	11.5	16.5	9.0	28.0	18.5	26.5	18.0	24.0	17.0	14.5	11.5
30	16.5	12.0	17.0	10.5	26.5	19.0	27.5	18.5	24.0	18.5	14.5	11.0
31	---	---	19.5	12.5	---	---	28.5	19.0	22.5	16.5	---	---
MONTH	18.0	4.0	19.5	6.5	28.0	12.0	28.5	14.0	29.5	15.5	25.0	11.0

14338000 ELK CREEK NEAR TRAIL, OR—Continued

TURBIDITY (JTU), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	5	0	1	6	1	1	6	0	0	1	0	0
2	200	2	70	5	1	1	0	0	0	1	0	1
3	65	3	20	2	1	1	4	0	0	2	1	1
4	3	1	2	4	0	1	4	0	0	1	1	1
5	2	1	1	3	0	1	3	0	0	7	0	1
6	3	1	1	2	1	1	6	0	0	3	0	1
7	3	1	1	7	0	1	0	0	0	2	0	0
8	3	1	1	2	0	1	0	0	0	15	0	1
9	6	1	2	2	0	1	2	0	0	1	0	0
10	3	1	1	7	0	1	0	0	0	3	0	0
11	2	1	1	1	0	0	1	0	0	2	0	1
12	15	1	2	3	0	1	2	0	0	4	1	2
13	4	1	1	90	0	5	3	0	0	4	1	2
14	2	1	1	3	1	1	1	0	0	2	1	2
15	4	1	1	6	1	2	3	0	0	1	1	1
16	7	0	2	10	1	3	15	0	1	4	1	1
17	4	1	1	25	1	3	1	0	0	3	0	1
18	2	0	1	6	1	2	0	0	0	1	0	1
19	3	1	1	0	0	0	15	0	1	3	0	1
20	3	1	2	1	0	0	1	0	0	1	0	0
21	1	1	1	1	0	0	5	0	0	1	0	1
22	1	1	1	3	0	1	2	0	0	1	0	0
23	1	0	1	2	0	0	2	0	0	3	0	1
24	1	1	1	8	0	2	2	0	0	3	0	1
25	2	1	1	3	0	1	2	0	0	2	0	0
26	25	1	4	6	0	1	2	0	0	1	0	0
27	7	1	2	3	0	1	2	0	0	3	0	0
28	2	1	1	3	1	2	1	0	0	4	0	1
29	6	1	2	2	1	1	0	0	0	2	0	0
30	2	1	1	1	0	0	2	0	0	1	0	0
31	4	1	1	---	---	---	0	0	0	1	0	0
MONTH	200	0	4	90	0	1	15	0	0	15	0	0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2	0	0	25	15	20	7	0	---	35	0	---
2	1	0	0	15	15	15	5	2	4	65	15	35
3	2	0	0	20	15	15	2	0	1	20	10	15
4	3	0	0	20	15	20	0	0	---	20	15	20
5	0	0	0	15	15	15	2	0	1	35	15	25
6	0	0	0	15	10	15	3	0	1	20	10	15
7	1	0	0	15	10	10	0	0	---	10	8	9
8	0	0	0	50	10	30	1	0	---	8	5	6
9	0	0	0	70	20	45	85	0	---	5	2	4
10	1	0	0	40	20	25	0	0	---	5	2	3
11	0	0	0	20	15	20	1	0	---	15	3	10
12	1	0	0	15	15	15	0	0	---	9	5	7
13	1	0	0	20	15	15	0	0	---	9	3	4
14	1	0	0	8	6	8	0	0	---	6	2	3
15	0	0	0	7	3	5	0	0	---	3	1	2
16	0	0	0	9	2	3	0	0	---	4	0	1
17	2	0	0	5	1	2	0	0	---	9	2	7
18	0	0	0	5	0	1	0	0	---	9	4	6
19	2	0	0	10	0	0	0	0	---	6	2	4
20	0	0	0	5	1	3	0	0	---	3	0	2
21	0	0	0	7	2	3	0	0	---	6	0	1
22	20	1	10	10	1	2	0	0	---	2	0	0
23	6	4	5	5	1	3	0	0	---	50	2	25
24	7	4	6	8	4	6	0	0	---	40	15	20
25	8	6	7	9	5	7	0	0	---	10	6	8
26	6	5	5	4	2	3	0	0	---	15	5	8
27	8	5	7	2	1	2	0	0	---	10	5	8
28	25	8	15	3	2	3	0	0	---	8	3	4
29	---	---	---	2	1	2	0	0	---	3	2	3
30	---	---	---	1	0	1	0	0	---	10	1	3
31	---	---	---	0	0	0	---	---	---	2	1	1
MONTH	25	0	1	70	0	10	85	0	1	65	0	8

14338000 ELK CREEK NEAR TRAIL, OR--Continued

TURBIDITY (JTU), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	3	1	2	2	0	---	1	1	1	1	1	1
2	2	0	1	10	0	---	4	1	1	1	1	1
3	4	0	1	7	0	1	1	1	1	1	1	1
4	2	0	1	1	0	---	1	1	1	1	1	1
5	7	0	1	35	0	---	2	1	1	1	1	1
6	5	1	1	2	0	---	1	1	1	1	1	1
7	2	0	---	0	0	---	4	1	1	1	1	1
8	0	0	---	0	0	---	4	1	1	2	1	1
9	25	0	---	0	0	---	15	1	4	2	1	1
10	1	0	---	5	0	---	10	6	7	1	1	1
11	3	0	---	1	0	---	8	6	7	1	1	1
12	0	0	---	6	1	1	8	6	7	3	1	1
13	0	0	---	1	1	1	8	7	7	7	1	2
14	0	0	---	1	1	1	10	7	9	1	1	1
15	15	0	---	1	1	1	15	1	8	1	1	1
16	5	0	---	1	1	1	1	1	1	1	1	1
17	4	0	---	30	1	2	1	1	1	20	1	2
18	0	0	---	1	1	1	1	1	1	1	1	1
19	3	0	---	1	1	1	1	1	1	1	1	1
20	0	0	---	1	1	1	1	1	1	1	1	1
21	45	0	---	1	1	1	1	1	1	1	1	1
22	1	0	---	1	1	1	1	1	1	1	1	1
23	3	0	---	5	1	1	1	1	1	1	1	1
24	2	0	---	2	1	1	1	1	1	1	1	1
25	1	0	---	1	1	1	1	1	1	1	1	1
26	15	0	---	1	1	1	1	1	1	1	1	1
27	7	0	---	1	1	1	1	1	1	1	1	1
28	0	0	---	9	1	1	3	1	1	55	1	15
29	1	0	---	1	1	1	1	1	1	50	10	30
30	0	0	---	6	1	1	1	1	1	15	4	7
31	---	---	---	5	1	1	1	1	1	---	---	---
MONTH	45	0	1	35	0	1	15	1	2	55	1	2

14339000 ROGUE RIVER AT DODGE BRIDGE, NEAR EAGLE POINT, OR

LOCATION.--Lat 42°31'30", long 122°50'30", in SE¼ sec.17, T.35 S., R.1 W., Jackson County, Hydrologic Unit 17100307, on right bank 50 ft (15 m) upstream from Dodge Bridge, 0.7 mi (1.1 km) downstream from Reese Creek, 4.3 mi (6.9 km) northwest of Eagle Point, and at mile 138.61 (223.02 km).

DRAINAGE AREA.--1,215 mi^2 (3,147 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year.

REVISED RECORDS.--WSP 1094: 1942(M), 1943, 1945(M), 1946. WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,271.39 ft (387.520 m) above mean sea level. Prior to Dec. 21, 1938, nonrecording gage, Dec. 21, 1938, to Aug. 15, 1968, water-stage recorder, at datum 2.27 ft (0.692 m) higher, Aug. 16, 1968, to Sept. 30, 1976, water-stage recorder, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Water-discharge records good. Flow regulated since February 1977 by Lost Creek Lake (see station 14335040). Diversions for irrigation above station; most of flow of Big Butte Creek is diverted near Butte Falls.

AVERAGE DISCHARGE.--39 years, 2,636 ft^3/s (74.65 m^3/s), 1,910,000 acre-ft/yr (2.36 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 87,600 ft^3/s (2,480 m^3/s) Dec. 22, 1964, gage height, 12.78 ft (3.895 m), datum then in use, from rating curve extended above 23,000 ft^3/s (651 m^3/s); minimum, 567 ft^3/s (16.1 m^3/s) Feb. 18, 1977, result of closure of Lost Creek dam, minimum prior to that time 611 ft^3/s (17.3 m^3/s) Aug. 6, 14, 29, Sept. 9, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,010 ft^3/s (56.9 m^3/s) Sept. 29, gage height, 2.38 ft (0.725 m); minimum, 567 ft^3/s (16.1 m^3/s) Feb. 18, result of closure of Lost Creek dam.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1280	1420	1180	1160	1110	1060	960	978	960	1130	1120	1130
2	1330	1400	1180	1240	1110	1080	996	1080	935	1130	1110	1130
3	1390	1320	1180	1240	1110	1180	952	996	918	1130	1110	1120
4	1370	1270	1180	1200	1110	1120	960	1070	910	1120	1130	1120
5	1330	1240	1180	1170	1110	1090	987	1130	886	1120	1180	1120
6	1310	1240	1180	1160	1110	1070	1010	1140	886	1120	1130	1150
7	1300	1230	1180	1160	1110	1090	969	1070	926	1140	1130	1140
8	1300	1220	1190	1170	1110	1210	978	1010	960	1130	1140	1140
9	1280	1220	1240	1160	1110	1430	943	987	1120	1130	1140	1130
10	1260	1210	1190	1160	1110	1340	894	1010	1130	1130	1130	1220
11	1260	1220	1180	1240	1110	1230	878	1100	1150	1110	1130	1220
12	1260	1210	1180	1240	1110	1220	846	1090	1140	1130	1120	1220
13	1250	1210	1170	1200	1110	1210	838	1030	1140	1140	1120	1230
14	1240	1290	1170	1180	1110	1150	846	996	1130	1140	1120	1220
15	1260	1330	1170	1170	1110	1130	830	996	1130	1170	1110	1220
16	1270	1410	1170	1170	1110	1090	823	987	1110	1280	1110	1230
17	1310	1290	1170	1170	1130	1070	830	1070	1100	1290	1110	1220
18	1300	1250	1170	1170	969	1080	823	1110	1110	1240	1120	1230
19	1300	1240	1170	1170	640	1100	800	1050	1100	1150	1120	1240
20	1260	1230	1170	1170	709	1130	800	1010	1100	1130	1120	1220
21	1300	1220	1170	1170	806	1140	815	969	1100	1140	1140	1240
22	1290	1220	1170	1160	862	1140	854	996	1100	1140	1120	1240
23	1290	1270	1170	1160	870	1180	902	1330	1110	1150	1120	1240
24	1300	1270	1170	1140	902	1200	886	1390	1110	1130	1140	1240
25	1420	1210	1170	1120	910	1220	894	1230	1180	1140	1150	1240
26	1470	1200	1180	1110	918	1120	886	1270	1200	1130	1140	1230
27	1370	1190	1180	1110	943	1120	878	1240	1160	1130	1140	1230
28	1330	1180	1170	1110	1020	1240	878	1140	1100	1120	1140	1560
29	1330	1180	1170	1110	---	978	926	1080	1100	1120	1140	1690
30	1330	1180	1170	1110	---	943	960	1020	1120	1120	1130	1340
31	1330	---	1170	1110	---	918	---	996	---	1140	1130	---
TOTAL	40620	37570	36490	36110	28441	35279	26842	33571	32121	35520	34990	36920
MEAN	1310	1252	1177	1165	1016	1138	895	1083	1071	1146	1129	1231
MAX	1470	1420	1240	1240	1130	1430	1010	1390	1200	1290	1180	1690
MIN	1240	1180	1170	1110	640	918	800	969	886	1110	1110	1120
AC-FT	80570	74520	72380	71620	56410	69980	53240	66590	63710	70450	69400	73230

CAL YR 1976 TOTAL 895860 MEAN 2448 MAX 12400 MIN 1170 AC-FT 1777000
WTR YR 1977 TOTAL 414474 MEAN 1136 MAX 1690 MIN 640 AC-FT 822100

14339000 ROGUE RIVER AT DODGE BRIDGE, NEAR EAGLE POINT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1973 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 20.0°C July 27, 28, 1975; minimum, 0.0°C Jan. 6-8, 10, 11, 1974, Jan. 6-9, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 19.5°C Aug. 2; minimum, 0.0°C Jan. 6-9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	DISSOLVED OXYGEN (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT								
13...	1050	1260	8.0	--	--	--	4	14
NOV								
23...	1420	1270	5.0	78	7.0	12.2	2	6.9
DEC								
10...	1420	1190	4.0	62	7.9	13.7	1	3.2
22...	1330	1130	2.5	79	--	13.6	1	3.1
JAN								
14...	1100	1190	3.5	76	8.0	11.6	2	6.4
FEB								
01...	1430	1120	5.5	72	8.0	12.7	--	--
18...	1255	1150	--	--	--	--	2	6.2
22...	1300	862	6.5	84	8.0	12.6	4	9.3
MAR								
03...	1350	1200	5.5	--	--	--	10	32
09...	1430	1570	6.5	--	--	--	29	123
11...	1430	1430	7.0	83	8.2	12.6	--	--
24...	1000	1200	6.0	76	7.7	11.8	4	13
APR								
11...	1500	878	12.5	78	8.1	11.3	--	--
29...	1030	962	10.0	69	7.8	11.2	4	10
MAY								
11...	1330	1130	11.5	76	8.0	11.8	6	18
25...	1445	1200	12.5	67	8.4	11.8	--	--
JUN								
06...	1105	846	13.0	--	--	--	4	9.1
JUL								
11...	1000	1130	12.5	67	7.9	10.3	4	12
25...	1200	1130	13.5	67	8.2	10.5	--	--
AUG								
16...	1400	1050	17.5	67	8.5	11.0	--	--
SEP								
01...	1600	1130	17.5	68	8.7	10.8	2	6.1
13...	1600	1170	17.0	66	8.1	11.0	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
MAR				
03...	1350	1200	10	74
09...	1430	1570	29	80
MAY				
11...	1350	1130	6	85
JUN				
06...	1105	846	4	73

14339000 ROGUE RIVER AT DODGE BRIDGE, NEAR EAGLE POINT, OR--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.5	11.5	10.0	8.5	4.0	2.5	2.5	1.5	5.5	3.5	6.5	5.0
2	13.5	11.5	10.5	8.5	4.0	2.5	3.5	2.5	4.5	2.5	6.0	5.0
3	12.5	10.0	9.5	8.5	4.0	2.0	3.5	2.5	4.5	2.0	6.5	4.5
4	11.5	9.0	9.0	8.0	4.5	2.5	3.5	2.5	4.5	2.0	7.5	4.5
5	11.5	8.5	8.0	7.0	4.0	2.5	3.5	1.5	4.0	3.0	8.0	4.5
6	12.0	9.0	8.0	6.5	4.0	2.0	2.5	0.0	6.0	3.5	7.0	5.0
7	12.5	10.0	8.0	6.5	3.5	2.0	2.0	0.0	5.5	3.5	6.5	5.5
8	13.0	10.0	8.5	6.5	4.0	2.5	3.0	0.0	6.5	4.5	7.0	5.0
9	12.5	10.0	8.0	6.5	4.5	3.0	---	0.0	6.5	4.5	7.0	5.5
10	12.0	9.5	8.0	7.0	4.0	1.0	2.5	1.0	7.0	5.0	7.5	4.5
11	11.5	9.0	8.5	7.0	3.5	3.0	3.0	2.5	7.0	4.5	7.0	5.0
12	11.5	8.5	8.5	7.0	3.5	2.5	3.5	3.0	7.0	4.5	7.5	5.5
13	12.0	8.0	7.5	6.0	3.5	2.5	4.0	3.0	7.5	5.0	7.0	5.0
14	11.0	6.5	7.0	6.5	3.5	2.5	5.0	3.5	7.0	4.5	7.0	4.5
15	10.5	7.5	8.0	7.0	3.5	2.5	3.5	3.0	7.0	4.5	6.5	5.0
16	9.5	7.5	9.0	8.0	3.5	3.0	3.0	2.5	7.0	4.5	8.0	4.5
17	9.5	7.0	9.0	8.5	3.5	2.5	3.0	2.5	8.0	5.5	7.0	5.0
18	9.0	6.5	8.5	8.0	3.0	2.0	3.5	2.5	7.0	---	7.0	5.5
19	9.0	6.5	8.0	6.5	2.0	1.0	3.5	2.5	7.5	---	8.5	6.0
20	9.0	6.5	6.5	5.0	1.5	0.5	4.0	2.5	6.5	5.0	9.0	5.0
21	9.0	6.5	6.5	5.0	1.5	0.5	4.5	3.0	6.0	5.0	9.5	5.0
22	9.0	7.0	6.5	5.0	2.5	1.0	4.5	3.0	7.0	5.5	10.0	6.0
23	8.5	6.5	5.5	5.0	4.0	2.5	3.5	3.0	6.0	5.0	8.5	6.5
24	7.5	6.5	5.5	4.5	3.0	1.5	3.5	2.0	6.5	4.5	8.5	5.5
25	8.0	7.0	6.0	5.0	3.0	2.0	3.0	1.0	6.0	5.0	9.0	5.0
26	8.5	7.0	5.5	4.0	3.5	3.0	3.0	1.0	7.0	5.0	9.5	5.5
27	8.0	6.0	4.0	2.0	4.0	3.5	3.0	1.0	7.5	5.0	8.5	6.0
28	7.5	5.5	3.0	1.5	4.0	2.5	3.5	1.0	7.5	6.0	8.0	5.5
29	8.0	7.0	3.5	1.5	3.5	2.5	3.5	1.0	---	---	8.0	5.0
30	8.5	7.5	4.0	2.0	4.0	2.5	3.0	1.0	---	---	9.5	5.5
31	9.0	8.0	---	---	3.5	2.0	5.0	3.0	---	---	8.0	5.5
MONTH	14.5	5.5	10.5	1.5	4.5	0.5	5.0	0.0	8.0	2.0	10.0	4.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	6.5	11.5	9.5	15.5	11.5	15.5	11.5	17.5	13.5	18.0	---
2	10.0	5.5	14.0	9.0	15.0	10.0	16.5	11.0	19.5	14.0	18.0	13.0
3	11.0	6.0	12.5	10.0	14.0	10.5	14.5	10.5	19.0	13.5	18.5	13.0
4	12.0	7.5	12.0	9.0	17.0	10.5	15.0	11.0	19.0	13.0	18.5	14.0
5	12.0	7.5	10.5	8.5	18.0	12.0	15.0	10.0	19.0	13.0	19.0	14.0
6	12.0	8.0	12.5	8.0	17.0	12.5	17.0	10.0	19.0	13.0	18.0	13.0
7	12.0	8.0	13.0	9.0	16.5	12.0	17.5	11.0	18.5	14.0	18.0	13.0
8	11.5	9.0	13.0	8.0	16.5	12.0	17.0	11.5	18.5	13.5	17.5	13.0
9	9.5	7.5	12.0	9.0	15.0	10.5	16.5	11.5	18.5	13.5	17.5	12.5
10	10.5	6.0	10.5	9.0	13.0	10.5	17.0	10.5	19.0	13.0	17.5	13.0
11	12.5	8.0	12.0	8.5	15.0	10.0	18.0	11.5	17.0	13.0	18.0	13.0
12	14.5	8.0	13.5	9.0	16.0	9.5	17.5	12.0	16.5	14.0	17.5	13.0
13	12.0	9.5	13.5	9.0	16.0	10.5	17.5	11.0	17.5	13.5	17.5	13.0
14	11.5	7.0	12.0	10.0	16.0	10.5	18.0	11.5	18.5	13.5	17.5	13.5
15	12.0	8.0	11.5	9.0	16.0	10.0	18.0	12.0	18.5	13.0	14.5	13.0
16	12.5	9.0	11.5	8.5	16.5	10.0	18.0	12.0	18.0	12.5	---	12.5
17	11.5	7.0	11.5	8.5	14.0	11.0	17.5	12.0	---	---	---	---
18	11.5	6.5	11.5	8.5	15.0	10.5	17.0	12.5	---	---	---	---
19	12.0	7.0	14.0	8.5	15.5	11.0	18.5	13.0	---	---	---	---
20	11.5	7.5	15.0	10.0	14.0	10.0	18.5	12.5	---	---	---	---
21	13.0	8.5	15.0	11.0	17.0	10.5	18.5	12.5	---	---	---	---
22	12.0	8.0	13.0	9.5	17.5	11.5	18.5	12.5	---	---	---	---
23	10.5	8.0	11.5	9.0	17.0	11.0	18.5	12.5	---	---	---	---
24	10.5	8.0	13.0	9.5	17.0	11.0	18.5	13.0	---	---	---	---
25	10.5	8.0	12.5	10.0	17.5	11.0	18.5	13.0	---	---	---	---
26	13.0	7.0	13.0	9.5	17.5	11.0	19.0	13.0	---	---	---	---
27	13.5	8.0	13.0	8.5	17.0	11.0	18.5	13.0	---	---	---	---
28	12.0	8.5	14.0	8.5	17.5	11.0	18.0	12.5	---	---	---	---
29	13.0	8.5	14.5	9.5	17.5	11.5	18.0	12.5	---	---	---	---
30	13.5	9.5	15.0	10.0	16.0	11.5	18.5	12.5	---	---	---	---
31	---	---	16.0	11.0	---	---	19.0	13.0	---	---	---	---
MONTH	14.5	5.5	16.0	8.0	18.0	9.5	19.0	10.0	19.5	12.5	19.0	12.5

14341500 SOUTH FORK LITTLE BUTTE CREEK NEAR LAKECREEK, OR

LOCATION.--Lat 42°24'30", long 122°36'00", in SE¼ sec.29, T.36 S., R.2 E., Jackson County, Hydrologic Unit 17100307, on left bank 0.5 mi (0.8 km) upstream from intake of Rogue River Valley Canal, 1.4 mi (2.3 km) southeast of Lakecreek, and at mile 18.1 (29.1 km).

DRAINAGE AREA.--138 mi² (357 km²).

PERIOD OF RECORD.--April 1921 to current year.

REVISED RECORDS.--WSP 934: 1925(M). WSP 1398: 1922, 1927(M), 1937, 1941-42.

GAGE.--Water-stage recorder. Altitude of gage is 1,725 ft (526 m), by barometer. Supplementary nonrecording gage at site 25 ft (8 m) upstream used Jan. 12 to Sept. 6, 1965. Apr. 15 to June 17, 1921, nonrecording gage, and June 18, 1921, to Sept. 6, 1965, water-stage recorder at site 75 ft (23 m) upstream at datum 5.0 ft (1.52 m) lower.

REMARKS.--Records good. No regulation. Diversions for irrigation above station; also, in December 1958 Dead Indian collection canal began diverting above station from Code Creek and Dead Indian Creek and in December 1959 South Fork Little Butte collection canal began diverting above station from South Fork Little Butte Creek, Daley Creek, and Beaver Dam Creek. These are transbasin diversions to Howard Prairie Reservoir in Klamath River basin, but eventually this water is diverted back to Rogue River basin for irrigation of lands in the Ashland-Medford area and power development enroute.

AVERAGE DISCHARGE.--56 years, 105 ft³/s (2.974 m³/s), 76,070 acre-ft/yr (93.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,660 ft³/s (217 m³/s) Dec. 2, 1962, gage height, 8.35 ft (2.545 m), site and datum then in use; minimum, 2.0 ft³/s (0.057 m³/s) Aug. 10, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 280 ft³/s (7.93 m³/s) May 26, gage height, 6.50 ft (1.981 m), no peak above base of 500 ft³/s (14.2 m³/s); minimum, 8.0 ft³/s (0.23 m³/s) Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	17	15	16	16	24	46	59	75	21	10	11
2	21	15	15	20	14	23	49	81	66	21	11	11
3	17	15	15	19	14	29	43	81	59	21	11	11
4	15	15	16	18	14	25	46	75	54	20	9.0	11
5	14	15	15	18	14	25	50	70	46	20	9.0	11
6	14	15	15	17	15	25	56	64	42	19	10	11
7	13	14	15	16	15	24	66	68	43	18	12	11
8	13	14	16	16	16	25	93	60	43	18	15	11
9	13	14	18	16	16	36	86	57	56	17	13	11
10	13	14	17	17	15	33	68	88	57	17	12	11
11	13	14	17	17	15	30	62	127	75	14	11	10
12	13	14	16	18	14	32	60	108	45	14	11	9.6
13	13	15	16	18	15	29	70	88	56	15	12	9.0
14	13	17	16	18	15	27	68	81	49	13	13	8.6
15	13	20	16	17	14	24	64	86	43	13	10	9.6
16	13	19	16	17	14	23	66	144	40	13	9.6	11
17	14	18	16	17	14	22	64	163	37	13	9.6	12
18	14	17	16	17	14	22	59	136	40	13	9.6	12
19	14	17	16	17	14	22	56	127	36	11	9.6	14
20	14	17	15	17	13	25	51	121	31	12	10	15
21	14	16	15	17	16	26	54	111	30	12	11	13
22	14	16	15	17	18	30	54	111	28	11	11	12
23	14	16	14	17	17	42	54	199	25	11	11	12
24	14	15	14	17	17	40	51	189	24	11	14	17
25	15	15	14	17	16	34	48	148	23	11	15	17
26	16	15	15	17	17	33	54	189	22	12	16	14
27	15	14	16	16	19	40	52	185	21	11	14	14
28	15	14	15	16	23	36	57	136	21	11	13	48
29	14	14	16	16	---	34	56	117	21	12	12	75
30	14	15	16	16	---	32	54	98	20	11	11	34
31	16	---	16	16	---	32	---	81	---	10	11	---
TOTAL	449	466	483	528	434	904	1757	3448	1228	446	356.4	476.8
MEAN	14.5	15.5	15.6	17.0	15.5	29.2	58.6	111	40.9	14.4	11.5	15.9
MAX	21	20	18	20	23	42	93	199	75	21	16	75
MIN	13	14	14	16	13	22	43	57	20	10	9.0	8.6
AC-FT	891	924	958	1050	861	1790	3490	6840	2440	885	707	946

CAL YR 1976 TOTAL 26352.0 MEAN 72.0 MAX 320 MIN 13 AC-FT 52270
WTR YR 1977 TOTAL 10976.2 MEAN 30.1 MAX 199 MIN 8.6 AC-FT 21770

14342500 NORTH FORK LITTLE BUTTE CREEK AT FISH LAKE, NEAR LAKECREEK, OR

LOCATION.--Lat 42°22'35", long 122°21'20", in SE¼SW¼ sec.4, T.37 S., R.4 E., Jackson County, Hydrologic Unit 17100307, on right bank 0.5 mi (0.8 km) downstream from Fish Lake dam, 14 mi (23 km) east of Lakecreek, and at mile 15.2 (24.5 km).

DRAINAGE AREA.--20.8 mi^2 (53.9 km^2).

PERIOD OF RECORD.--October 1914 to July 1915, June 1916 to current year. Monthly discharge only November 1916 to May 1917, published in WSP 1318.

REVISED RECORDS.--WSP 634: Drainage area (former site). WSP 1218: 1917(M). WSP 1738: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,571.41 ft (1,393.366 m) above mean sea level. Oct. 1, 1914, to July 31, 1915, nonrecording gage at site 0.5 mi (0.8 km) upstream at different datum. June 1, 1916, to July 9, 1918, nonrecording gage and July 10, 1918, to Oct. 28, 1932, water-stage recorder at site 0.25 mi (0.40 km) upstream at different datums.

REMARKS.--Records good. Since 1915, Fish Lake (see below) has stored water for irrigation by Medford Irrigation District. Cascade Canal diverts from Fourmile Lake in Klamath River basin and discharges into lava bed 1.0 mi (1.6 km) above Fish Lake; diversion began August 1923. No diversion from creek above station.

AVERAGE DISCHARGE.--61 years (water years 1917-77), 36.5 ft^3/s (1.034 m^3/s), 26,440 acre-ft/yr (32.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 940 ft^3/s (26.6 m^3/s) June 5, 1917, computed from rate of change in contents of reservoir after break in dam occurred; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 103 ft^3/s (2.92 m^3/s) Aug. 2, 3, gage height, 1.73 ft (0.527 m); minimum, 0.68 ft^3/s (0.019 m^3/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	17	16	16	16	16	16	21	23	65	96	72
2	18	17	16	16	16	16	16	24	23	65	98	74
3	17	17	16	16	15	16	16	23	23	65	102	79
4	17	17	16	16	15	16	17	20	23	65	100	78
5	17	17	16	16	15	16	17	19	23	63	100	78
6	17	17	16	16	15	16	17	20	23	61	99	76
7	17	18	16	16	15	16	17	20	23	61	96	74
8	17	18	16	16	15	16	17	20	23	63	96	72
9	17	18	16	16	15	16	17	21	23	69	95	74
10	17	18	16	16	15	16	17	21	23	69	95	88
11	16	18	16	16	15	16	17	21	23	69	93	79
12	16	18	16	16	15	16	17	21	23	69	93	78
13	16	18	16	16	15	16	17	21	23	69	92	76
14	16	18	16	16	15	16	17	21	23	69	90	74
15	16	18	16	16	15	16	18	21	21	67	88	74
16	16	18	16	16	15	16	18	23	21	67	92	74
17	17	18	16	16	15	16	18	23	21	65	92	72
18	16	18	16	16	15	17	18	23	23	65	92	69
19	16	18	16	16	15	17	18	23	29	65	88	67
20	16	18	16	16	15	17	18	24	40	69	87	61
21	16	18	16	16	16	17	18	23	40	72	87	50
22	16	18	16	16	15	16	18	24	48	72	87	40
23	16	18	16	16	15	16	18	24	50	70	87	40
24	16	18	16	16	15	16	18	24	53	69	85	38
25	16	18	16	16	15	16	19	24	63	76	83	25
26	16	17	16	16	15	16	20	24	76	81	78	25
27	16	16	16	16	15	16	20	24	74	83	76	26
28	17	16	16	16	16	16	20	24	76	90	76	20
29	17	16	16	16	---	15	20	23	76	95	74	1.0
30	17	16	16	16	---	15	20	23	70	93	74	.76
31	17	---	16	16	---	16	---	23	---	93	72	---
TOTAL	522	525	496	496	424	498	534	690	1103	2214	2763	1754.76
MEAN	16.8	17.5	16.0	16.0	15.1	16.1	17.8	22.3	36.8	71.4	89.1	58.5
MAX	27	18	16	16	16	17	20	24	76	95	102	88
MIN	16	16	16	16	15	15	16	19	21	61	72	.76
AC-FT	1040	1040	984	984	841	988	1060	1370	2190	4390	5480	3480
(†)	5,660	5,960	6,200	6,300	a6,460	a6,460	6,460	6,920	5,480	4,340	a2,620	2,010

CAL YR 1976 TOTAL 13833.00 MEAN 37.8 MAX 99 MIN 16 AC-FT 27440
WTR YR 1977 TOTAL 12019.76 MEAN 32.9 MAX 102 MIN .76 AC-FT 23840

† Monthend contents, in acre-feet, of Fish Lake.
a Interpolated.

14343000 NORTH FORK LITTLE BUTTE CREEK NEAR LAKECREEK, OR

LOCATION.--Lat 42°24'10", long 122°32'10", in NW¼ sec.36, T.36 S., R.2 E., Jackson County, Hydrologic Unit 17100307, on right bank 1.2 mi (1.9 km) upstream from Wasson Canyon, 4.9 mi (7.9 km) east of Lakecreeek, and at mile 4.8 (7.7 km).

DRAINAGE AREA.--43.8 mi^2 (113.4 km^2).

PERIOD OF RECORD.--September 1911 to March 1913, July to September 1917, May 1922 to December 1964, September 1965 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as "above Medford intake, near Lakecreek" 1922-28, 1931-40. Records for April to September 1916, May 1917 to September 1919, April to September 1921, and October 1923 to September 1924 at site 3 mi (5 km) upstream not equivalent owing to diversions and difference in drainage areas.

REVISED RECORDS.--WSP 1518: 1912-13. WSP 1738: Drainage area (former site).

GAGE.--Water-stage recorder. Concrete control since Oct. 9, 1968. Altitude of gage is 2,160 ft (658 m), from topographic map. Sept. 10, 1911, to Mar. 31, 1913, and July 1 to Sept. 30, 1917, nonrecording gage at site 1,000 ft (305 m) downstream at different datums. May 26, 1922, to Dec. 31, 1964, water-stage recorder at site 1,000 ft (305 m) downstream at datum 2,125.01 ft (664.703 m) above mean sea level.

REMARKS.--Records good. Flow partly regulated since 1915 by Fish Lake (published with station 14342500). Diversions for irrigation above station; some water diverted into Fish Lake from Fourmile Lake, in Klamath River basin, since 1923.

AVERAGE DISCHARGE.--55 years (water years 1912, 1923-64, 1966-77), 72.2 ft^3/s (2.045 m^3/s), 52,310 acre-ft/yr (64.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,750 ft^3/s (49.6 m^3/s) Dec. 22, 1964, gage height, 3.70 ft (1.128 m), site and datum then in use; minimum, 11 ft^3/s (0.31 m^3/s) Oct. 29 to Nov. 8, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 126 ft^3/s (3.57 m^3/s) Aug. 4, gage height, 3.28 ft (1.000 m); minimum, 20 ft^3/s (0.57 m^3/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	39	39	34	37	39	54	42	51	89	111	86
2	40	39	39	38	37	40	48	44	51	86	111	88
3	39	39	39	36	36	44	44	55	50	83	117	92
4	39	38	39	36	36	40	44	49	49	84	115	91
5	39	38	39	36	36	40	44	50	48	84	115	91
6	39	38	39	36	36	39	44	51	48	84	113	91
7	39	38	39	36	36	39	43	49	47	84	113	88
8	39	38	40	35	36	40	47	47	45	83	111	84
9	39	38	40	35	36	48	44	49	45	91	111	86
10	39	38	39	35	36	42	43	64	45	89	109	92
11	39	38	39	35	36	41	43	70	48	89	109	89
12	39	38	39	35	36	43	42	57	45	88	108	88
13	38	38	39	36	35	40	44	54	45	89	108	86
14	38	39	38	36	34	40	43	51	44	88	108	84
15	38	39	37	35	34	39	42	52	43	88	108	84
16	38	39	37	35	34	39	42	80	43	88	108	84
17	38	39	37	35	34	39	41	75	43	86	111	84
18	38	40	37	35	34	38	40	64	44	86	109	80
19	38	40	37	35	34	42	40	59	48	88	108	78
20	37	40	37	35	34	41	39	57	61	88	108	75
21	37	40	37	36	36	40	39	54	60	92	106	65
22	37	40	37	36	36	41	38	59	67	92	104	52
23	37	40	37	36	36	44	38	80	70	92	102	52
24	37	40	37	36	36	43	38	65	72	92	104	50
25	39	40	37	36	37	41	39	60	78	96	102	39
26	38	39	37	36	37	39	40	74	94	102	96	39
27	38	39	36	36	37	42	40	67	92	102	91	41
28	38	39	36	37	42	42	40	61	94	106	89	67
29	38	39	35	37	---	41	40	57	96	111	89	33
30	38	39	35	37	---	41	40	55	94	111	88	21
31	39	---	35	37	---	39	---	54	---	109	88	---
TOTAL	1200	1168	1168	1109	1004	1266	1263	1805	1760	2840	3270	2180
MEAN	38.7	38.9	37.7	35.8	35.9	40.8	42.1	58.2	58.7	91.6	105	72.7
MAX	51	40	40	38	42	48	54	80	96	111	117	92
MIN	37	38	35	34	34	38	38	42	43	83	88	21
AC-FT	2380	2320	2320	2200	1990	2510	2510	3580	3490	5630	6490	4320

CAL YR 1976 TOTAL 25920 MEAN 70.8 MAX 140 MIN 35 AC-FT 51410
WTR YR 1977 TOTAL 20033 MEAN 54.9 MAX 117 MIN 21 AC-FT 39740

14350000 EMIGRANT CREEK NEAR ASHLAND, OR

LOCATION.--Lat 43°09'50", long 122°36'15", in SE¼NE¼ sec.20, T.39 S., R.2 E., Jackson County, Hydrologic Unit 17100309, on left bank 0.1 mi (0.2 km) downstream from Emigrant Dam, 6 mi (10 km) southeast of Ashland, and at mile 29.2 (47.0 km).

DRAINAGE AREA.--64.3 mi^2 (166.5 km^2).

PERIOD OF RECORD.--January to June 1920, October 1920 to July 1922, February 1923 to May 1924 (incomplete), October 1924 to November 1925, February to August 1926, October 1926 to September 1928, April 1929 to September 1930, April 1931 to October 1932 (incomplete), April 1933 to September 1935, April 1936 to September 1939 (incomplete), April 1940 to September 1947, January 1948 to October 1952 (incomplete), December 1952 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1448: 1921, 1927-28, 1937, 1953(M).

GAGE.--Water-stage recorder and artificial control. Datum of gage is 2,042.80 ft (622.645 m) above mean sea level (Bureau of Reclamation bench mark). Prior to Oct. 1, 1926, water-stage recorder or nonrecording gage at several nearby sites at various datums. Oct. 1, 1926, to Feb. 24, 1959, water-stage recorder near present site at datum 10.93 ft (3.331 m) higher. Feb. 25, 1959, to May 7, 1961, water-stage recorder at site 1.0 mi (1.6 km) downstream at different datum.

REMARKS.--Records good. Flow regulated since 1924 by Emigrant Lake (see below). Several diversions above station for irrigation; the principal diversion canals are Ashland lateral and East lateral (see below). From June 1923 to August 1960, water diverted by Keene Creek Canal from Klamath River basin into Emigrant Creek above station. Beginning May 1960, water from Klamath River basin diverted to Emigrant Creek above station via Green Springs powerplant diversion.

AVERAGE DISCHARGE.--37 years (water years 1925, 1927-30, 1934-35, 1941-47, 1954-77), 31.6 ft^3/s (0.895 m^3/s), 22,890 acre-ft/yr (28.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,260 ft^3/s (149 m^3/s) Feb. 20, 1927, by computation of peak flow over dam; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 71 ft^3/s (2.01 m^3/s) June 30, July 1, gage height, 1.35 ft (0.411 m); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	.00	.00	.00	.10	.10	.30	12	.20	67	45	29
2	8.0	.00	.00	.00	.00	.10	.50	.20	.20	62	46	32
3	8.0	.10	.10	.10	.00	.10	.50	.10	.20	62	54	32
4	7.4	.10	.10	.10	.10	.10	.40	.10	.20	58	61	31
5	6.8	.10	.10	.10	.10	.10	.30	.10	.20	53	64	31
6	.70	.10	.10	.10	.10	.10	.30	.10	.20	53	66	31
7	.20	.10	.10	.10	.00	.10	.30	.10	7.3	53	64	31
8	.20	.10	.10	.10	.00	.10	.30	.10	12	52	55	31
9	.30	.10	.10	.10	.10	.10	.30	.10	11	51	51	31
10	.30	.10	.10	.10	.10	.10	.30	.10	10	51	47	28
11	.30	.10	.00	.10	.10	.00	.30	.10	2.0	46	44	26
12	.20	.10	.10	.10	.10	.10	.30	.20	.20	45	43	26
13	.30	.00	.10	.10	.10	.10	.30	.20	9.1	45	44	26
14	.20	.10	.00	.10	.10	.10	.30	.20	22	45	44	27
15	.20	.00	.00	.10	.10	.10	.30	.20	15	48	43	28
16	.10	.10	.00	.10	.10	.10	.30	.20	9.3	48	42	28
17	.10	.10	.00	.10	.10	.10	.30	.20	11	48	43	28
18	.00	.10	.00	.10	.10	.10	12	.20	15	47	41	28
19	.00	.10	.00	.10	.10	.10	10	.20	18	47	39	21
20	.00	.10	.00	.10	.00	.10	10	.20	18	52	36	17
21	.00	.10	.00	.10	.10	.10	12	.30	18	58	44	14
22	.00	.10	.00	.10	.10	.10	12	.30	26	60	33	13
23	.00	.10	.00	.10	.10	.10	12	.40	46	57	33	13
24	.00	.10	.10	.00	.10	.10	12	.40	51	56	33	11
25	.00	.10	.10	.00	.10	.10	12	.40	56	52	29	9.3
26	.00	.10	.10	.10	.10	.10	12	.30	62	49	25	9.3
27	.00	.00	.10	.10	.10	.10	12	.30	61	48	26	9.3
28	.00	.00	.00	.10	.10	.10	12	.30	62	48	26	3.3
29	.00	.00	.00	.10	---	.20	12	.30	68	47	26	.30
30	.00	.00	.10	.10	---	.20	12	.30	71	46	27	.20
31	.00	---	.00	.10	---	.20	---	.20	---	46	28	---
TOTAL	47.30	2.20	1.50	2.70	2.30	3.30	157.60	18.40	682.10	1600	1302	644.70
MEAN	1.53	.073	.048	.087	.082	.11	5.25	.59	22.7	51.6	42.0	21.5
MAX	14	.10	.10	.10	.10	.20	12	12	71	67	66	32
MIN	.00	.00	.00	.00	.00	.00	.30	.10	.20	45	25	.20
AC-FT	94	4.4	3.0	5.4	4.6	6.5	313	36	1350	3170	2580	1280
(†)	a13,940	16,820	20,100	22,990	25,680	a29,210	28,460	31,320	27,260	17,880	9,490	5,700
(‡)	139	0	0	0	0	0	2,940	2,200	5,880	8,060	7,820	4,940

CAL YR 1976 TOTAL 5480.00 MEAN 15.0 MAX 87 MIN .00 AC-FT 10870
WTR YR 1977 TOTAL 4464.10 MEAN 12.2 MAX 71 MIN .00 AC-FT 8850

† Monthend contents, in acre-feet, of Emigrant Lake.
‡ Diversion, in acre-feet, by East Lateral.
a Interpolated.

14353000 WEST FORK ASHLAND CREEK NEAR ASHLAND, OR

LOCATION.--Lat 42°08'55", long 122°42'55", near line between NW¼ and SW¼ sec.38, T.39 S., R.1 E., Jackson County, Hydrologic Unit 17100308, in Rogue River National Forest, on left bank 0.3 mi (0.5 km) above city diversion, 2.5 mi (4.0 km) south of Ashland, and at mile 0.4 (0.6 km).

DRAINAGE AREA.--10.5 mi^2 (27.2 km^2), at diversion dam 0.3 mi (0.5 km) downstream.

PERIOD OF RECORD.--September 1924 to January 1933, water years 1954-60, 1963, annual maximum; December 1974 to current year. Monthly discharge only for some periods published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 2,962.75 ft (903.046 m) above mean sea level. Sept. 10, 1924, to Jan. 31, 1933, water-stage recorder at site about 0.2 mi (0.3 km) upstream at different datum. Oct. 14, 1953, to Sept. 30, 1963, crest-stage gage at diversion dam 0.3 mi (0.5 km) downstream at different datum.

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--10 years (water years 1925-32, 1976-77), 7.99 ft^3/s (0.226 m^3/s), 10.33 in/yr (262 mm/yr), 5,790 acre-ft/yr (7.14 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 330 ft^3/s (9.35 m^3/s) Dec. 2, 1962, gage height, 15.51 ft (4.727 m), site and datum then in use, from rating curve defined by computation of peak flow over dam; minimum, 1.3 ft^3/s (0.037 m^3/s) Aug. 29, 1931, Sept. 8, 9, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 15, 1974, is the highest since at least 1900. Discharge, 4,780 ft^3/s (135 m^3/s) by slope-area measurement of peak flow, gage height, 9.5 ft (2.90 m), from flood marks. Peak believed to be affected by release from debris dams breaking upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21 ft^3/s (0.59 m^3/s) Nov. 15, no peak above base of 50 ft^3/s (1.42 m^3/s); maximum gage height, 1.86 ft (0.567 m) May 22; minimum discharge, 1.3 ft^3/s (0.037 m^3/s) Sept. 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	2.9	3.8	3.1	2.6	2.8	2.7	4.9	8.3	5.0	1.7	1.5
2	3.7	2.9	3.7	3.4	2.5	2.7	2.5	5.2	8.0	4.7	1.7	1.5
3	3.3	2.8	3.7	3.0	2.5	2.8	2.8	5.2	8.0	4.2	1.7	1.4
4	3.1	2.7	3.7	3.0	2.5	2.7	3.6	4.6	8.5	4.3	1.7	1.5
5	3.0	2.8	3.7	2.8	2.5	2.8	4.3	4.7	8.7	4.3	1.6	1.5
6	2.9	2.7	3.7	2.0	2.4	3.0	4.9	4.7	8.9	4.3	1.6	1.4
7	2.9	3.0	3.7	2.1	2.4	3.1	5.6	4.6	8.9	4.1	4.3	1.4
8	2.8	3.1	3.9	2.1	2.5	3.1	6.2	4.6	8.7	3.9	2.6	1.4
9	2.8	3.3	4.1	2.9	2.4	3.3	5.5	4.9	8.0	3.8	2.1	1.6
10	2.8	3.5	4.2	3.1	2.4	2.9	4.9	5.2	8.3	3.6	1.9	1.7
11	2.8	4.7	4.6	3.1	2.3	2.9	4.9	5.5	8.5	3.4	1.8	1.7
12	2.8	5.0	4.3	3.1	2.3	3.0	5.0	5.5	8.0	3.2	1.7	1.7
13	2.8	5.6	4.1	3.0	2.3	2.6	5.3	5.5	8.3	3.0	1.7	1.7
14	2.7	9.2	3.9	3.0	2.2	2.6	4.7	5.2	7.6	2.9	1.6	1.7
15	2.7	8.3	3.9	2.9	2.2	2.6	5.0	5.2	7.4	2.7	1.6	1.8
16	2.7	4.7	3.5	2.9	2.2	2.6	5.3	5.5	7.1	2.7	1.6	2.3
17	2.7	4.4	3.4	3.1	2.1	2.6	4.7	5.6	6.9	2.6	1.6	2.8
18	2.7	4.3	3.3	3.1	2.1	2.6	4.4	5.3	6.9	2.5	1.6	3.0
19	2.6	4.3	3.2	3.2	2.1	2.8	4.2	5.5	6.7	2.6	1.6	3.6
20	2.6	4.2	3.2	3.1	2.4	2.8	4.2	6.2	6.5	2.5	1.7	3.8
21	2.6	4.1	3.2	3.2	3.2	2.8	4.3	6.5	6.3	2.4	1.9	3.1
22	2.7	4.1	3.3	3.0	2.8	3.2	4.6	8.5	6.0	2.4	1.6	2.7
23	2.7	4.1	3.3	2.9	2.7	3.5	4.7	11	5.5	2.1	1.6	3.0
24	2.7	4.1	3.1	2.7	2.6	3.1	4.7	9.9	5.2	1.9	1.7	8.0
25	3.0	4.1	3.3	2.6	2.6	3.0	4.9	9.2	4.9	1.9	1.9	4.7
26	2.9	4.2	3.3	2.6	2.6	2.9	4.4	9.9	4.9	1.9	1.8	4.2
27	2.8	3.6	3.2	2.6	2.8	3.1	4.3	9.2	4.7	1.9	1.6	4.6
28	2.8	3.9	3.1	2.6	3.2	3.0	4.3	8.5	4.4	1.9	1.6	8.7
29	2.7	4.1	3.1	2.6	---	2.8	4.3	8.3	4.3	1.9	1.6	8.5
30	2.8	4.1	3.1	2.6	---	2.5	4.4	8.0	4.3	1.8	1.5	3.2
31	2.9	---	3.0	2.6	---	2.5	---	8.5	---	1.7	1.5	---
TOTAL	87.9	124.8	110.6	88.0	69.4	88.7	135.6	201.1	208.7	92.1	55.7	89.7
MEAN	2.84	4.16	3.57	2.84	2.48	2.86	4.52	6.49	6.96	2.97	1.80	2.99
MAX	3.7	9.2	4.6	3.4	3.2	3.5	6.2	11	8.9	5.0	4.3	8.7
MIN	2.6	2.7	3.0	2.0	2.1	2.5	2.5	4.6	4.3	1.7	1.5	1.4
CFSM	.27	.40	.34	.27	.24	.27	.43	.62	.66	.28	.17	.29
IN.	.31	.44	.39	.31	.25	.31	.48	.71	.74	.33	.20	.32
AC-FT	174	248	219	175	138	176	269	399	414	183	110	178

CAL YR 1976 TOTAL 2638.9 MEAN 7.21 MAX 22 MIN 2.6 CFSM .69 IN 9.35 AC-FT 5230
WTR YR 1977 TOTAL 1352.3 MEAN 3.70 MAX 11 MIN 1.4 CFSM .35 IN 4.79 AC-FT 2680

14353500 EAST FORK ASHLAND CREEK NEAR ASHLAND, OR

LOCATION.--Lat 42°09'10", long 122°42'30", near line between NE¼ and NW¼ sec.28, T.39 S., R.1 E., Jackson County, Hydrologic Unit 17100308, Rogue River National Forest, on left bank 0.1 mi (0.2 km) above city diversion dam, 2.5 mi (4.0 km) south of Ashland, and at mile 0.2 (0.3 km).

DRAINAGE AREA.--8.14 mi² (21.1 km²), at diversion dam 0.1 mi (0.2 km) downstream.

PERIOD OF RECORD.--September 1924 to January 1933, water years 1954-60, 1963, annual maximum; December 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,903.70 ft (885.048 m) above mean sea level. Sept. 10, 1924, to Jan. 31, 1933, water-stage recorder at site about 200 ft (61.0 m) downstream at different datum. Oct. 19, 1953, to Sept. 30, 1963, crest-stage gage at diversion dam 0.1 mi (0.2 km) downstream at different datum.

REMARKS.--Records good. No regulation or diversion.

AVERAGE DISCHARGE.--10 years (water years 1925-32, 1976-77), 8.19 ft³/s (0.232 m³/s), 13.66 in/yr (347 mm/yr), 5,930 acre-ft/yr (7.31 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 335 ft³/s (9.49 m³/s) Dec. 2, 1962, gage height, 5.42 ft (1.652 m), site and datum then in use, from rating curve defined by computations of peak flow over dam; minimum, 0.47 ft³/s (0.013 m³/s) Mar. 14, 1977, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 15, 1974, is the highest since at least 1925. Discharge, 5,630 ft³/s (159 m³/s) by slope-area measurement of peak flow, gage height, 10.2 ft (3.11 m) from flood marks. Peak believed to be affected by release from debris dams breaking upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13 ft³/s (0.37 m³/s) May 22, gage height, 1.62 ft (0.494 m), no peak above base of 40 ft³/s (1.13 m³/s); minimum, 0.47 ft³/s (0.013 m³/s) Mar. 14, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	3.0	3.1	2.6	2.5	2.7	2.8	4.1	6.5	3.9	2.1	1.7
2	3.7	2.8	3.1	3.0	2.5	2.7	2.8	4.6	6.0	3.6	2.1	1.7
3	3.6	2.8	2.8	2.7	2.5	2.7	3.0	4.4	5.8	3.3	2.1	1.6
4	3.4	2.7	2.8	2.8	2.3	2.4	3.4	3.7	5.8	3.3	2.0	1.7
5	3.3	2.7	2.8	2.7	2.5	2.6	4.1	3.7	6.0	3.4	2.0	1.7
6	3.1	2.6	2.8	2.5	2.5	2.6	4.1	3.6	6.0	3.4	2.0	1.7
7	3.0	2.6	2.8	2.5	2.5	3.0	5.0	3.6	5.8	3.3	4.1	1.7
8	2.8	2.6	3.0	2.6	2.6	3.1	5.8	3.6	5.8	3.1	2.5	1.6
9	2.8	2.6	3.1	2.6	2.6	3.3	4.8	3.9	5.6	3.0	2.2	1.6
10	2.8	2.6	3.0	2.8	2.5	2.8	3.9	4.1	6.0	3.0	2.1	1.6
11	2.8	2.6	3.3	3.1	2.5	2.8	3.7	4.4	6.5	3.0	2.0	1.6
12	2.8	2.6	3.1	2.8	2.5	2.8	3.9	4.6	5.8	3.0	2.0	1.6
13	2.7	2.7	3.1	2.8	2.5	2.3	4.3	4.8	6.0	2.8	1.9	1.6
14	2.7	5.2	3.0	2.7	2.5	2.4	3.6	4.8	5.4	2.8	1.9	1.6
15	2.7	6.7	3.0	2.7	2.3	2.7	3.7	4.6	5.0	2.7	1.7	1.6
16	2.7	4.3	3.0	2.7	2.3	2.7	4.4	5.0	4.8	2.6	1.7	2.0
17	2.6	3.7	3.0	2.8	2.2	2.6	3.4	4.8	4.6	2.6	1.7	2.4
18	2.6	3.4	2.8	2.8	2.2	2.6	3.3	4.8	4.8	2.6	1.7	2.4
19	2.6	3.4	2.7	3.0	2.2	2.6	3.1	5.0	4.6	2.6	1.6	2.7
20	2.6	3.3	2.7	3.0	2.6	2.7	3.3	5.8	4.4	2.6	1.7	2.6
21	2.6	3.1	2.7	3.0	3.3	2.7	3.4	6.0	4.6	2.5	2.0	2.4
22	2.6	3.1	2.7	3.0	2.6	3.0	3.4	7.9	4.3	2.6	1.8	2.2
23	2.6	3.1	2.7	2.8	2.5	3.4	3.4	9.7	4.1	2.5	1.7	2.2
24	2.7	3.1	3.1	2.6	2.5	3.0	3.4	8.6	3.9	2.3	2.0	3.5
25	3.1	3.1	2.8	2.6	2.6	2.8	3.6	7.4	3.7	2.2	2.1	2.3
26	3.0	3.0	2.8	2.6	2.6	2.8	3.3	8.1	3.6	2.3	2.0	2.1
27	3.0	2.7	2.7	2.6	2.7	3.0	3.3	7.4	3.6	2.2	2.0	2.2
28	2.8	3.1	2.6	2.6	3.1	2.7	3.3	6.7	3.4	2.2	2.0	7.6
29	2.8	3.1	2.6	2.6	---	2.8	3.3	6.2	3.3	2.2	1.8	6.5
30	2.8	3.1	2.6	2.6	---	2.8	3.6	6.2	3.3	2.2	1.8	2.8
31	3.0	---	2.6	2.6	---	2.7	---	6.5	---	2.1	1.7	---
TOTAL	89.3	95.4	88.9	84.8	70.7	85.8	110.4	168.6	149.0	85.9	62.0	70.5
MEAN	2.88	3.18	2.87	2.74	2.53	2.77	3.68	5.44	4.97	2.77	2.00	2.35
MAX	3.7	6.7	3.3	3.1	3.3	3.4	5.8	9.7	6.5	3.9	4.1	7.6
MIN	2.6	2.6	2.6	2.5	2.2	2.3	2.8	3.6	3.3	2.1	1.6	1.6
CFSM	.35	.39	.35	.34	.31	.34	.45	.67	.61	.34	.25	.29
IN.	.41	.44	.41	.39	.32	.39	.50	.77	.68	.39	.28	.32
AC-FT	177	189	176	168	140	170	219	334	296	170	123	140

CAL YR 1976 TOTAL 2367.0 MEAN 6.47 MAX 18 MIN 2.6 CFSM .80 IN 10.82 AC-FT 4690
WTR YR 1977 TOTAL 1161.3 MEAN 3.18 MAX 9.7 MIN 1.6 CFSM .39 IN 5.31 AC-FT 2300

14357500 BEAR CREEK AT MEDFORD, OR

LOCATION.--Lat 42°19'40", long 122°52'10", in NW¼ sec.30, T.37 S., R.1 W., Jackson County, Hydrologic Unit 17100308, on left bank 40 ft (12 m) upstream from Main Street Bridge in Medford and at mile 9.91 (15.95 km).

DRAINAGE AREA.--289 mi^2 (749 km^2).

PERIOD OF RECORD.--March 1915 to June 1920 (no low-flow records), October 1920 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1044: 1944. WSP 1448: 1916, 1917(M), 1918-20, 1922, 1924, 1927(M), 1928, 1930. WSP 1568: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,343.98 ft (409.645 m) above mean sea level. See WSP 1738 for history of changes prior to Dec. 31, 1947.

REMARKS.--Records good. Flow partly regulated since 1924 by Emigrant Lake (published wiith station 14350000). Numerous diversions for irrigation above station.

AVERAGE DISCHARGE.--57 years (water years 1921-77), 115 ft^3/s (3.257 m^3/s), 83,320 acre-ft/yr (103 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,500 ft^3/s (411 m^3/s) Dec. 2, 1962, gage height, 8.04 ft (2.451 m); maximum gage height, about 11.0 ft (3.35 m) Feb. 20, 1927, from floodmarks, present datum, site then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,170 ft^3/s (33.1 m^3/s) Sept. 28, gage height, 2.64 ft (0.805 m); minimum, 2.3 ft^3/s (0.065 m^3/s) Oct. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	6.7	25	19	18	27	38	28	44	50	28	34
2	92	14	24	49	18	29	29	63	41	40	23	24
3	53	24	24	37	18	31	18	71	35	38	25	24
4	43	24	25	28	17	27	22	61	28	44	28	34
5	32	25	24	29	17	24	27	46	25	44	29	35
6	32	28	24	21	18	24	32	58	24	40	29	35
7	27	28	24	21	19	25	23	54	22	31	61	27
8	18	28	27	21	21	25	14	49	25	37	59	27
9	17	28	35	21	21	43	22	49	31	46	40	32
10	17	28	23	22	19	54	18	46	34	38	35	37
11	14	28	23	38	19	51	14	67	56	41	25	38
12	11	28	23	41	18	51	14	69	65	31	28	37
13	11	28	22	27	16	51	19	54	61	29	27	24
14	11	35	22	24	16	49	24	44	56	34	27	23
15	11	43	23	24	16	46	17	44	47	34	29	23
16	10	40	22	23	17	43	15	71	28	35	25	27
17	9.0	27	21	22	18	44	22	116	28	34	29	44
18	9.0	24	21	23	17	47	16	94	34	31	38	59
19	3.8	22	18	23	21	47	16	88	35	25	35	88
20	7.8	21	19	23	15	51	16	69	31	25	35	90
21	10	21	19	23	37	51	21	56	28	28	35	83
22	9.0	21	21	23	28	51	17	75	25	32	31	61
23	7.8	32	21	22	34	65	21	176	25	28	27	49
24	9.0	35	21	22	27	63	17	155	28	25	32	67
25	9.0	34	21	19	23	59	17	96	31	27	43	59
26	6.7	34	22	19	23	54	21	108	32	24	59	49
27	6.7	32	22	18	24	54	18	123	29	23	54	58
28	4.6	34	21	18	29	56	17	90	25	22	43	702
29	5.5	32	21	18	---	56	27	73	29	24	41	388
30	6.7	32	21	18	---	54	23	61	29	24	41	103
31	6.7	---	19	19	---	47	---	49	---	25	44	---
TOTAL	583.3	836.7	698	755	584	1399	615	2303	1031	1009	1105	2381
MEAN	18.8	27.9	22.5	24.4	20.9	45.1	20.5	74.3	34.4	32.5	35.6	79.4
MAX	92	43	35	49	37	65	38	176	65	50	61	702
MIN	3.8	6.7	18	18	15	24	14	28	22	22	23	23
AC-FT	1160	1660	1380	1500	1160	2770	1220	4570	2040	2000	2190	4720

CAL YR 1976 TOTAL 29809.0 MEAN 81.4 MAX 316 MIN 3.8 AC-FT 59130
WTR YR 1977 TOTAL 13300.0 MEAN 36.4 MAX 702 MIN 3.8 AC-FT 26380

14359000 ROGUE RIVER AT RAYGOLD, NEAR CENTRAL POINT, OR

LOCATION.--Lat 42°26'15", long 122°59'10", in SW¼ sec.18, T.36 S., R.2 W., Jackson County, Hydrologic Unit 17100308, on right bank at Raygold, 0.1 mi (0.2 km) downstream from Gold Ray Dam, 1.0 mi (1.6 km) downstream from Bear Creek, 5.6 mi (9.0 km) northwest of Central Point, and at mile 125.8 (202.4 km).

DRAINAGE AREA.--2,053 mi² (5,317 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1905 to current year. Prior to October 1921, published as "near Tolo."

REVISED RECORDS.--WSP 1248: 1906, 1914(M), 1915. WSP 1398: 1910(M). WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,121.78 ft (341.919 m) above mean sea level. Prior to Sept. 19, 1914, nonrecording gage and Sept. 19, 1914, to Sept. 30, 1956, water-stage recorder, at site 300 ft (91 m) upstream at same datum.

REMARKS.--Water-discharge records excellent. Flow regulated since February 1977 by Lost Creek Lake (see station 14335040). Minor fluctuations caused by fishway operations at Gold Ray dam 0.1 mi (0.2 km) above station. Slight regulation by Fish Lake (published with station 14342500) and Emigrant Lake (published with station 14350000). Many diversions for irrigation above station.

AVERAGE DISCHARGE.--72 years, 2,976 ft³/s (84.28 m³/s), 2,156,000 acre-ft/yr (2.66 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 131,000 ft³/s (3,710 m³/s) Dec. 23, 1964, gage height, 23.43 ft (7.141 m), from rating curve extended above 63,000 ft³/s (1,780 m³/s) on basis of slope-area measurement of 113,000 ft³/s (3,200 m³/s); minimum, 619 ft³/s (17.5 m³/s) Feb. 19, 1977, result of closure of Lost Creek dam; minimum daily, 616 ft³/s (17.4 m³/s) Sept. 6, 1931.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in December 1861 reached a stage of about 32 ft (10 m), discharge not determined, and flood in February 1890 reached a stage of about 27.5 ft (8.38 m), discharge not determined, from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,830 ft³/s (165 m³/s) Sept. 29, gage height, 4.06 ft (1.237 m); minimum, 619 ft³/s (17.5 m³/s) Feb. 19, result of closure of Lost Creek dam.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1490	1520	1360	1300	1290	1190	1130	1080	1170	1200	1090	1180
2	1760	1540	1350	1530	1270	1140	1210	1430	1110	1220	1070	1160
3	1660	1450	1320	1550	1240	1340	1130	1290	1040	1190	1050	1130
4	1540	1440	1350	1440	1230	1260	1110	1400	1020	1200	1070	1160
5	1500	1420	1340	1390	1220	1170	1130	1350	981	1200	1150	1170
6	1490	1420	1340	1290	1230	1150	1130	1420	950	1190	1080	1190
7	1460	1420	1340	1240	1220	1160	1100	1350	1000	1170	1150	1180
8	1430	1420	1360	1270	1230	1270	1100	1270	1000	1160	1190	1160
9	1420	1420	1470	1240	1240	1650	1100	1230	1180	1160	1130	1170
10	1420	1410	1360	1320	1230	1650	1050	1280	1200	1160	1130	1220
11	1410	1410	1350	1460	1230	1420	1000	1570	1290	1150	1100	1250
12	1410	1400	1360	1540	1230	1360	934	1530	1310	1140	1080	1280
13	1360	1400	1350	1430	1220	1380	903	1350	1310	1140	1110	1280
14	1350	1490	1340	1400	1230	1300	934	1230	1310	1150	1130	1290
15	1410	1580	1330	1360	1220	1250	910	1210	1280	1170	1120	1270
16	1380	1660	1340	1350	1200	1220	903	1360	1230	1310	1090	1300
17	1430	1520	1340	1330	1190	1200	872	1650	1190	1340	1080	1340
18	1420	1460	1320	1330	1130	1200	872	1580	1230	1320	1090	1380
19	1420	1430	1290	1340	662	1220	834	1500	1250	1150	1100	1440
20	1410	1420	1290	1360	727	1270	826	1340	1250	1130	1120	1410
21	1400	1410	1300	1340	849	1270	849	1250	1190	1130	1150	1420
22	1410	1400	1310	1330	942	1270	879	1270	1170	1130	1130	1390
23	1400	1410	1310	1320	950	1360	958	2160	1170	1140	1120	1380
24	1400	1400	1310	1310	1000	1440	942	2240	1170	1130	1150	1440
25	1510	1390	1300	1290	981	1440	950	1810	1230	1110	1200	1420
26	1610	1390	1350	1290	981	1370	965	1870	1260	1100	1220	1380
27	1490	1370	1370	1270	1010	1350	934	2070	1240	1100	1210	1370
28	1440	1360	1330	1280	1080	1470	934	1680	1130	1080	1210	3210
29	1440	1360	1320	1270	---	1260	1000	1520	1130	1080	1210	3980
30	1450	1370	1320	1270	---	1200	1080	1390	1130	1100	1170	1880
31	1450	---	1310	1280	---	1130	---	1280	---	1110	1170	---
TOTAL	45170	43090	41430	41720	31232	40360	29669	45960	35121	36060	35070	43830
MEAN	1457	1436	1336	1346	1115	1302	989	1483	1171	1163	1131	1461
MAX	1760	1660	1470	1550	1290	1650	1210	2240	1310	1340	1220	3980
MIN	1350	1360	1290	1240	662	1130	826	1080	950	1080	1050	1130
AC-FT	89590	85470	82180	82750	61950	80050	58850	91160	69660	71520	69560	86940

CAL YR 1976 TOTAL 1023040 MEAN 2795 MAX 13100 MIN 1290 AC-FT 2029000
WTR YR 1977 TOTAL 468712 MEAN 1284 MAX 3980 MIN 662 AC-FT 929700

14359000 ROGUE RIVER AT RAYGOLD, NEAR CENTRAL POINT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1973 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 22.0°C July 25, 26, 1976; minimum, 0.0°C Jan. 7, 1974.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.0°C June 6, 7; minimum recorded, 1.5°C Dec. 21, 22, but may have been lower during period of no record.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	15.0	11.0	9.5	4.5	3.0	3.5	3.0	6.0	4.5	8.0	7.0
2	16.5	14.5	11.0	10.0	4.5	3.5	---	---	6.0	4.0	7.5	6.5
3	14.5	12.5	11.0	10.5	4.5	3.0	---	---	5.0	3.5	7.5	6.0
4	14.0	12.0	10.5	9.5	4.5	3.5	---	---	5.0	3.5	8.0	6.0
5	13.5	11.5	9.5	8.5	4.5	3.5	---	---	5.0	4.0	8.5	7.0
6	14.0	12.0	8.5	8.0	4.0	3.0	---	---	6.0	4.0	8.5	7.5
7	14.5	12.5	9.0	8.0	4.0	3.0	---	---	6.0	5.0	8.5	7.0
8	15.0	13.0	9.0	8.0	4.5	3.5	---	---	7.5	5.5	8.0	7.0
9	15.0	13.0	9.0	8.0	5.0	4.5	---	---	7.5	6.5	8.0	7.5
10	14.0	12.0	8.5	8.0	5.0	5.0	---	---	8.0	6.5	8.5	6.5
11	13.5	11.5	9.5	8.0	5.0	4.0	---	---	8.0	6.5	8.5	7.0
12	13.0	11.5	9.5	8.5	4.0	3.5	---	---	8.0	6.5	8.5	7.5
13	13.0	11.0	9.0	7.5	4.0	3.5	5.0	---	8.0	7.0	8.0	7.0
14	12.5	10.5	8.0	7.5	4.0	3.5	5.5	4.5	8.0	7.0	8.0	6.5
15	12.0	10.5	9.5	8.0	4.0	3.5	5.5	4.0	8.0	6.5	7.5	7.0
16	11.5	10.0	10.0	9.0	4.0	3.5	4.0	4.0	8.5	6.5	8.5	6.0
17	11.0	9.5	10.0	10.0	4.0	4.0	4.0	3.5	9.0	7.5	8.5	7.0
18	11.0	9.0	10.0	9.5	3.5	3.0	4.0	3.5	9.0	7.0	8.0	7.0
19	10.0	8.5	9.5	9.0	3.0	2.0	4.0	3.5	8.0	7.0	9.5	7.5
20	10.0	8.5	9.0	7.0	2.0	2.0	4.0	3.5	8.0	7.5	10.0	8.0
21	10.0	8.5	7.0	6.0	2.0	1.5	5.0	4.0	8.0	7.0	10.5	8.5
22	10.0	8.5	7.0	6.0	2.5	1.5	5.0	4.0	8.0	6.5	11.0	9.0
23	10.0	8.5	6.5	6.0	4.0	2.5	4.5	4.0	8.0	7.0	11.0	9.5
24	9.5	8.0	6.5	6.0	4.0	3.0	4.5	3.5	7.5	6.0	9.5	8.0
25	9.0	7.5	7.0	5.5	3.5	2.5	4.0	2.5	7.5	7.0	10.0	7.0
26	9.0	7.5	6.5	5.0	4.0	3.0	3.5	2.5	8.0	7.0	10.5	8.0
27	9.0	7.5	5.5	3.5	4.5	4.0	3.5	2.0	8.5	7.5	10.5	9.5
28	9.0	7.5	4.0	2.5	4.5	4.0	3.5	2.0	8.5	8.0	9.5	7.5
29	8.5	8.0	4.0	2.5	4.0	3.5	3.5	2.5	---	---	8.5	7.5
30	9.5	8.5	4.5	3.0	4.5	3.5	3.5	2.5	---	---	10.0	7.5
31	10.5	9.0	---	---	4.0	3.5	5.5	3.5	---	---	10.0	8.5
MONTH	17.0	7.5	11.0	2.5	5.0	1.5	5.5	2.0	9.0	3.5	11.0	6.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.5	8.0	14.5	13.5	18.0	16.5	18.0	17.0	20.0	19.0	18.5	16.5
2	10.5	8.5	14.5	12.0	18.0	15.0	18.5	16.5	20.5	18.0	18.5	17.5
3	12.0	9.5	14.5	13.5	17.0	15.5	18.0	16.5	20.5	19.5	19.0	15.0
4	13.5	10.5	13.5	11.5	16.0	14.5	16.5	15.0	20.5	19.0	20.0	18.0
5	13.5	11.5	13.0	11.5	19.0	15.5	16.5	15.0	20.5	18.5	20.0	18.0
6	14.0	11.5	12.5	10.0	21.0	19.0	17.5	14.5	20.0	18.5	20.0	17.5
7	13.5	12.0	14.0	11.5	21.0	18.5	18.5	16.5	20.5	19.0	19.0	17.5
8	13.5	12.0	14.0	11.5	19.5	18.0	18.5	17.5	20.5	18.5	18.5	16.5
9	12.0	10.5	14.5	12.5	19.5	17.0	18.5	17.0	20.0	18.5	18.0	16.5
10	11.5	9.0	13.5	11.5	17.0	15.0	18.0	16.5	20.0	18.5	18.0	16.5
11	13.5	11.0	13.5	11.0	17.0	14.0	19.0	17.0	20.5	18.5	18.0	16.5
12	14.0	12.0	14.5	12.0	18.0	15.5	19.0	18.0	20.5	19.0	18.0	16.5
13	13.5	13.0	15.0	13.0	18.5	17.0	18.5	16.5	20.0	19.0	18.0	15.0
14	13.0	11.0	15.0	13.5	18.5	16.5	18.5	17.0	20.0	18.5	18.0	17.0
15	13.5	12.0	14.5	12.5	18.5	16.5	19.0	17.5	20.0	18.5	18.0	14.5
16	14.0	12.5	13.5	11.5	18.5	16.5	19.5	17.5	20.5	19.0	15.5	14.0
17	13.5	11.5	12.5	11.0	18.5	15.0	19.0	17.0	20.5	19.5	15.5	14.5
18	12.5	11.0	13.0	11.0	16.0	14.5	19.0	17.5	20.0	19.0	16.0	14.5
19	13.0	11.0	14.0	11.0	18.0	16.0	19.5	17.5	19.5	18.0	16.5	15.0
20	13.0	11.5	16.5	14.0	17.5	15.5	19.5	18.0	19.5	17.5	16.5	15.0
21	14.5	12.0	17.0	15.0	18.5	15.0	19.5	18.0	20.0	17.5	16.5	14.5
22	14.5	12.5	17.0	13.0	19.5	18.0	19.5	18.5	20.0	18.0	16.0	14.0
23	13.0	11.5	13.0	11.0	19.5	18.0	20.0	18.5	19.5	18.0	15.5	14.0
24	12.5	11.0	13.5	12.0	19.0	17.5	20.0	18.5	19.5	18.5	15.5	13.5
25	12.5	11.0	15.5	13.5	19.0	17.5	19.5	18.5	18.5	16.5	16.0	14.5
26	13.5	10.0	15.0	13.0	19.0	17.5	19.5	18.0	17.5	15.5	16.5	14.5
27	14.5	12.5	14.5	11.0	19.0	17.5	19.0	18.0	17.5	16.0	16.5	14.0
28	14.5	13.5	14.0	12.0	19.0	17.5	19.0	17.5	19.0	17.0	15.0	14.0
29	14.0	12.0	15.5	13.5	19.0	18.0	19.0	17.5	19.5	17.0	15.5	13.5
30	14.5	13.0	17.0	14.5	19.0	17.5	19.5	17.5	19.5	17.0	15.0	13.0
31	---	---	17.0	15.5	---	---	20.0	18.5	19.5	17.5	---	---
MONTH	14.5	8.0	17.0	10.0	21.0	14.0	20.0	14.5	20.5	15.5	20.0	13.0

14361500 ROGUE RIVER AT GRANTS PASS, OR

LOCATION.--Lat 42°25'50", long 123°19'00", in NW¼ sec.20, T.36 S., R.5 W., Josephine County, Hydrologic Unit 17100308, on right bank at city of Grants Pass filter plant, 0.6 mi (1.0 km) upstream from bridge on State Highway 99 at Grants Pass, and at mile 101.8 (163.8 km).

DRAINAGE AREA.--2,459 mi^2 (6,369 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Prior to January 1939 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 885.28 ft (269.833 m) above mean sea level. Prior to Aug. 8, 1957, at datum 3.00 ft (0.914 m) higher.

REMARKS.--Water-discharge records excellent prior to May, fair thereafter. Flow regulated since February 1977 by Lost Creek Lake (station 14355040), slight regulation by Fish Lake and Emigrant Lake. Large fluctuations at times caused by Savage Rapids Dam 5.5 mi (8.8 km) above station. Many diversions from Rogue River and tributaries above station, the largest of which is at Savage Rapids Dam of Grants Pass Irrigation District, 5.5 mi (8.8 km) above station.

AVERAGE DISCHARGE.--39 years, 3,515 ft^3/s (99.54 m^3/s), 2,547,000 acre-ft/yr (3.14 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 152,000 ft^3/s (4,300 m^3/s) Dec. 23, 1964, gage height, 34.15 ft (10.409 m), from rating curve extended above 93,000 ft^3/s (2,630 m^3/s); minimum, 195 ft^3/s (5.52 m^3/s) Jan. 30, 1961; minimum daily, 606 ft^3/s (17.2 m^3/s) Sept. 10, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in December 1861 reached a stage of about 42 ft (13 m), present datum (information furnished by Corps of Engineers). Flood in February 1890 reached a stage of about 35 ft (11 m), present datum, and that of Feb. 21, 1927, about 31 ft (9 m), present datum, according to local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,880 ft^3/s (195 m^3/s) Sept. 29, gage height, 4.74 ft (1.445 m), no peak above base of 13,000 ft^3/s (368 m^3/s); minimum, 600 ft^3/s (17.0 m^3/s) Apr. 19, caused by regulation at Savage Rapids Dam; minimum daily, 710 ft^3/s (20.1 m^3/s) Apr. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2110	1540	1410	1340	1320	1310	1140	1170	1100	1060	927	1010
2	1660	1600	1400	1520	1300	1250	1280	1540	1020	1130	895	1010
3	1710	1520	1400	1650	1270	1330	1270	1260	919	1100	879	992
4	1550	1500	1410	1540	1260	1340	1190	1400	887	1070	887	1000
5	1490	1470	1400	1450	1250	1140	1070	1330	855	1070	944	1020
6	1480	1470	1390	1370	1260	1190	1110	1460	816	1040	935	1010
7	1460	1480	1390	1270	1260	1180	1070	1400	808	1020	944	1030
8	1430	1460	1410	1300	1250	1260	1070	1300	816	984	1020	1020
9	1420	1480	1520	1270	1270	1780	1070	1270	879	992	968	1030
10	1420	1460	1440	1310	1270	1950	1050	1240	1040	992	944	1070
11	1410	1460	1420	1460	1260	1620	976	1540	1140	968	911	1110
12	1400	1460	1410	1580	1260	1520	968	1700	1200	927	887	1120
13	1400	1460	1410	1500	1260	1530	935	1490	1160	919	895	1130
14	1350	1520	1390	1460	1260	1450	919	1250	1170	935	919	1130
15	1400	1650	1380	1420	1250	1360	863	1210	1110	944	919	1110
16	1380	1730	1390	1390	1240	1320	919	1330	1050	1050	903	1160
17	1440	1620	1390	1370	1220	1280	952	1700	992	1120	879	1220
18	1430	1540	1360	1370	1190	1280	863	1700	1050	1130	879	1330
19	1420	1500	1340	1380	808	1290	710	1610	1080	992	895	1360
20	1410	1480	1330	1400	734	1340	783	1430	1080	919	927	1350
21	1410	1470	1340	1380	863	1380	847	1300	1030	903	968	1340
22	1400	1460	1350	1370	1010	1360	887	1250	1000	903	952	1330
23	1400	1460	1360	1370	1050	1440	960	2120	976	927	944	1300
24	1420	1470	1350	1350	1110	1600	984	2530	1010	935	968	1340
25	1510	1450	1340	1330	1060	1610	1040	2000	1070	919	1040	1360
26	1630	1450	1380	1310	1040	1540	1040	1800	1120	887	1090	1320
27	1530	1430	1420	1290	1070	1490	855	2310	1120	895	1070	1290
28	1490	1410	1380	1300	1150	1540	919	1800	1020	887	1070	2740
29	1490	1390	1360	1300	---	1520	1020	1590	984	895	1070	5000
30	1500	1420	1360	1290	---	1340	1140	1410	976	911	1030	2280
31	1500	---	1350	1310	---	1230	---	1250	---	935	1010	---
TOTAL	46050	44810	42980	42950	32545	43770	29900	47690	30478	30359	29569	41512
MEAN	1485	1494	1386	1385	1162	1412	997	1538	1016	979	954	1384
MAX	2110	1730	1520	1650	1320	1950	1280	2530	1200	1130	1090	5000
MIN	1350	1390	1330	1270	734	1140	710	1170	808	887	879	992
AC-FT	91340	88880	85250	85190	64550	86820	59310	94590	60450	60220	58650	82340

CAL YR 1976 TOTAL 1059010 MEAN 2893 MAX 14900 MIN 1240 AC-FT 2101000
WTR YR 1977 TOTAL 462613 MEAN 1267 MAX 5000 MIN 710 AC-FT 917600

14361500 ROGUE RIVER AT GRANTS PASS, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1973 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 23.5°C June 7, 1977; minimum, 0.5°C Jan. 7, 8, 11, 1974, Jan. 8, 9, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 23.5°C June 7; minimum, 0.5°C Jan. 8, 9.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	15.5	11.0	9.5	4.0	2.5	4.0	3.0	5.5	4.0	8.5	7.5
2	17.0	15.0	11.5	10.0	4.0	3.0	3.5	3.0	5.5	4.0	8.0	7.0
3	15.0	13.5	11.0	10.5	4.0	2.5	4.0	3.0	5.0	3.5	7.5	6.5
4	14.0	12.0	11.0	10.5	4.0	3.0	4.5	3.5	5.0	3.5	8.0	6.5
5	13.5	11.5	10.5	9.5	4.0	3.0	4.5	4.0	5.0	4.0	8.0	7.0
6	14.0	11.5	9.5	8.5	4.0	3.0	4.0	2.5	6.0	4.5	8.5	7.5
7	14.5	12.0	9.0	8.0	3.5	2.5	3.0	1.5	6.5	5.0	8.5	8.0
8	15.0	12.5	9.0	8.0	4.0	3.0	1.5	0.5	6.5	5.5	9.0	8.0
9	15.0	13.0	8.5	7.5	4.5	3.5	1.0	0.5	7.5	6.0	8.5	8.0
10	14.5	12.5	8.5	8.0	5.0	4.0	2.5	1.0	8.0	6.5	8.5	7.5
11	14.0	12.0	9.0	8.0	4.5	4.5	3.5	2.0	8.5	7.0	8.0	7.5
12	13.5	11.5	9.5	8.0	4.5	4.0	4.5	3.5	8.5	6.5	8.5	7.5
13	13.0	11.0	9.0	8.0	4.0	3.5	4.5	4.0	8.5	7.0	8.5	7.5
14	12.5	10.5	8.5	7.5	4.0	3.5	5.0	4.0	8.5	7.0	8.5	7.0
15	12.0	10.0	9.0	7.5	4.0	3.5	5.0	4.0	8.5	7.0	8.0	7.0
16	12.0	10.0	10.0	8.5	4.0	3.5	5.0	4.0	8.5	7.0	8.5	7.0
17	11.5	9.5	10.5	9.5	4.0	3.5	4.0	3.5	9.0	7.5	8.5	7.0
18	10.5	8.5	10.5	10.0	3.5	3.5	4.0	3.5	9.0	7.5	9.0	7.5
19	10.5	8.0	10.0	9.5	3.5	2.5	4.0	3.5	8.5	7.0	9.5	7.5
20	10.0	8.0	9.5	8.0	2.5	2.0	4.0	3.5	8.0	7.5	10.0	8.5
21	10.0	8.0	8.5	6.5	2.0	1.5	4.5	3.5	8.0	7.5	10.5	9.0
22	10.0	8.5	7.5	6.0	2.0	1.5	5.0	4.0	7.5	7.0	11.5	9.5
23	10.0	8.5	7.0	6.0	2.5	2.0	5.0	4.0	7.5	7.0	11.5	10.0
24	9.5	8.0	6.5	6.0	3.5	2.5	5.0	4.0	7.5	6.5	10.5	9.5
25	8.5	7.5	6.5	6.0	3.5	2.5	4.5	3.5	7.5	6.5	9.5	9.0
26	9.0	7.0	6.0	5.5	3.5	2.5	3.5	2.0	8.0	7.5	9.5	9.0
27	9.0	7.0	5.5	4.0	4.5	3.5	3.5	2.0	8.5	7.5	10.5	9.5
28	8.5	7.0	4.5	2.5	4.0	4.0	3.5	2.0	8.5	8.0	10.5	9.0
29	8.5	7.5	3.5	2.0	4.0	4.0	3.5	2.0	---	---	9.0	8.0
30	9.5	8.0	3.5	2.0	4.0	3.5	3.5	2.0	---	---	9.5	8.0
31	10.0	8.5	---	---	4.0	3.5	4.5	3.0	---	---	9.5	8.0
MONTH	17.0	7.0	11.5	2.0	5.0	1.5	5.0	0.5	9.0	3.5	11.5	6.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.5	8.5	16.0	14.0	20.0	17.0	22.0	19.5	21.5	20.0	21.0	18.5
2	11.0	9.0	15.5	14.0	20.5	17.0	21.0	18.5	21.0	20.0	21.0	18.0
3	12.0	9.5	14.5	13.0	19.0	17.0	20.5	17.5	21.5	20.5	21.0	18.0
4	13.5	9.5	15.0	13.0	19.5	16.5	20.0	17.5	22.5	21.0	21.5	19.0
5	15.0	11.0	13.5	12.0	20.5	17.0	19.5	16.5	22.5	21.0	22.0	19.5
6	15.5	12.0	13.5	11.5	21.5	18.5	19.5	15.5	23.0	20.5	22.5	19.5
7	15.5	12.5	13.5	11.5	23.5	21.0	20.0	16.0	22.5	20.5	21.5	19.5
8	15.5	13.0	15.0	11.5	23.0	20.5	21.0	17.0	22.5	20.5	21.0	18.5
9	14.5	12.5	15.5	12.5	22.0	19.0	21.5	18.0	22.0	20.5	20.5	18.0
10	13.5	11.0	15.0	13.0	20.0	18.0	21.5	18.0	22.0	20.0	20.0	17.5
11	13.5	10.5	14.0	12.5	19.0	17.0	21.5	18.0	21.5	20.5	20.0	17.5
12	15.0	11.0	14.0	12.5	19.0	16.5	22.0	18.5	21.5	20.5	20.0	17.5
13	15.5	12.5	15.5	13.0	20.5	16.5	22.0	18.5	21.5	20.5	20.0	17.5
14	15.5	12.5	16.5	14.0	21.0	18.0	21.5	18.5	22.0	20.0	20.0	18.0
15	15.5	12.0	16.0	14.0	21.0	18.0	21.5	18.5	21.5	20.0	18.5	17.0
16	15.5	12.5	15.0	12.5	21.5	18.0	21.5	19.0	21.5	20.0	17.0	15.5
17	15.5	12.0	13.5	12.5	20.0	18.0	22.0	19.0	21.5	20.5	15.5	15.0
18	15.5	12.0	13.0	12.0	20.0	17.5	21.5	19.5	21.5	20.5	16.0	15.0
19	15.0	13.5	14.0	12.0	19.0	17.0	22.5	19.5	21.5	20.0	16.5	15.5
20	14.0	11.5	16.0	12.5	19.0	16.5	22.0	19.5	22.0	19.5	17.0	15.5
21	15.0	12.5	18.0	14.5	20.5	17.0	22.5	19.5	22.0	19.0	17.0	15.5
22	15.5	13.0	16.5	15.5	20.5	17.5	22.0	20.0	21.5	19.0	16.5	15.0
23	16.0	13.0	15.0	13.0	22.0	18.5	22.0	20.0	22.0	19.0	16.0	14.5
24	15.0	13.5	14.5	13.0	22.0	19.5	22.5	20.5	21.5	19.5	16.0	14.5
25	14.0	13.0	15.0	14.0	22.0	19.5	23.0	20.0	20.0	18.5	16.0	14.5
26	14.5	11.5	15.5	14.5	22.5	19.0	22.0	20.0	19.5	18.0	17.0	15.5
27	15.5	11.5	14.5	13.5	22.0	19.5	22.0	19.5	18.5	17.0	16.5	15.5
28	15.5	12.5	14.5	13.0	22.0	19.0	22.0	19.0	19.5	17.0	16.0	14.0
29	16.0	14.0	16.0	13.5	21.5	19.0	22.0	19.0	20.5	17.5	15.0	14.0
30	16.0	14.0	17.5	15.0	22.0	19.0	22.0	19.0	21.5	18.5	14.5	13.5
31	---	---	19.0	16.0	---	---	21.5	19.5	21.5	19.0	---	---
MONTH	16.0	8.5	19.0	11.5	23.5	16.5	23.0	15.5	23.0	17.0	22.5	13.5

14362000 APPLEGATE RIVER NEAR COPPER, OR

LOCATION.--Lat 42°03'30", long 123°06'50", in SE¼ sec.25, T.40 S., R.4 W., Jackson County, Hydrologic Unit 17100309, on right bank 0.2 mi (0.3 km) downstream from French Gulch, 1.2 mi (1.9 km) downstream from Squaw Creek, 2.6 mi (4.2 km) northeast of Copper, and at mile 46.3 (74.5 km).

DRAINAGE AREA.--223 mi^2 (578 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Prior to January 1939 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,759.66 ft (536.344 m) above mean sea level.

REMARKS.--Water-discharge records good. Some storage during winter in Squaw Lakes Reservoir, capacity, 1,100 acre-ft (1.36 hm^3) on Squaw Creek above station. Diversion for irrigation above station in Applegate River basin; also diversion above station for irrigation into Thompson Creek basin.

AVERAGE DISCHARGE.--39 years, 446 ft^3/s (12.63 m^3/s), 323,100 acre-ft/yr (398 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,800 ft^3/s (844 m^3/s) Jan. 15, 1974, gage height, 25.38 ft (7.736 m), from high-water mark in well, from rating curve extended above 12,000 ft^3/s (340 m^3/s) on basis of four slope-area measurements of peak flows made in 1950, 1955, 1964, and 1974; minimum, 19 ft^3/s (0.54 m^3/s) Sept. 12-15, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 857 ft^3/s (24.3 m^3/s) Sept. 28, gage height, 2.59 ft (0.789 m), no peak above base of 2,000 ft^3/s (56.6 m^3/s); minimum, 19 ft^3/s (0.54 m^3/s) Sept. 12-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	52	44	40	40	101	80	227	200	68	31	24
2	55	50	44	55	38	82	80	244	179	66	31	23
3	59	47	44	54	40	79	82	255	163	59	30	22
4	55	46	44	47	37	71	107	216	163	55	28	22
5	54	44	44	49	37	71	166	189	166	57	27	23
6	52	44	43	46	38	77	205	168	163	54	26	22
7	52	43	44	68	38	101	249	161	156	52	41	22
8	50	44	46	57	44	163	331	148	143	52	43	21
9	50	44	54	49	50	187	238	153	132	49	35	21
10	47	44	49	49	44	125	187	168	127	43	31	21
11	44	52	49	68	43	101	171	173	134	40	28	21
12	44	52	47	73	44	101	181	171	132	43	27	20
13	40	52	46	59	44	88	222	158	163	44	26	19
14	41	101	44	49	43	82	203	158	148	44	25	19
15	41	86	44	46	43	77	192	153	116	43	25	20
16	41	73	44	46	41	73	235	148	101	43	25	21
17	43	62	44	44	40	71	205	143	95	46	24	26
18	43	59	46	47	38	70	176	136	95	46	24	40
19	43	57	62	49	37	70	156	130	95	41	22	44
20	43	54	56	49	47	71	153	136	86	43	21	54
21	41	50	55	52	110	75	153	153	84	40	22	41
22	41	49	41	52	88	92	163	176	77	35	20	34
23	41	49	40	47	79	123	166	230	73	37	20	30
24	43	47	41	44	71	110	176	211	70	35	22	47
25	55	46	38	43	64	99	200	195	66	38	28	41
26	49	46	41	49	61	92	179	320	61	47	30	34
27	46	44	44	49	68	97	161	282	57	37	28	37
28	44	43	41	46	114	93	166	230	55	34	26	547
29	44	44	41	46	---	88	181	213	54	32	26	423
30	47	44	41	44	---	86	216	200	54	31	25	153
31	47	---	40	40	---	80	---	203	---	30	24	---
TOTAL	1449	1568	1401	1556	1481	2896	5380	5848	3408	1384	841	1912
MEAN	46.7	52.3	45.2	50.2	52.9	93.4	179	189	114	44.6	27.1	63.7
MAX	59	101	62	73	114	187	331	320	200	68	43	547
MIN	40	43	38	40	37	70	80	130	54	30	20	19
AC-FT	2870	3110	2780	3090	2940	5740	10670	11600	6760	2750	1670	3790

CAL YR 1976 TOTAL 78163 MEAN 214 MAX 1150 MIN 38 AC-FT 155000
WTR YR 1977 TOTAL 29124 MEAN 79.8 MAX 547 MIN 19 AC-FT 57770

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: January to September 1977.
TURBIDITY: February 1973 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26.0°C July 23, Aug. 2, 3, 1977; minimum, 0.0°C many days in January and February, 1977.
TURBIDITY: Maximum recorded, 1,000 JTU Jan. 15, 1974 (meter inundated), Mar. 30, 1974; minimum, 0 JTU on many days each year.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 26.0°C July 23, Aug. 2, 3; minimum, 0.0°C many days in January and February.
TURBIDITY: Maximum, 850 JTU June 13; minimum, 0 JTU on many days.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1							---	---	4.5	1.0	7.0	3.5
2							---	---	3.5	0.0	5.5	3.5
3							---	---	3.5	0.0	6.5	4.0
4							---	---	4.5	0.0	8.0	3.0
5							---	---	4.5	1.5	8.5	3.0
6							1.0	0.0	5.5	2.0	7.5	3.5
7							0.5	0.0	6.0	1.5	7.0	5.5
8							0.5	0.0	7.0	3.5	8.5	4.5
9							0.0	0.0	6.0	2.5	7.0	4.5
10							1.5	0.0	7.5	3.5	8.0	3.5
11							2.0	0.0	7.5	3.0	7.5	3.0
12							2.5	0.5	7.5	3.5	7.5	4.5
13							4.0	1.0	8.0	3.5	7.0	3.0
14							3.0	0.0	7.5	3.0	6.5	3.0
15							3.0	0.0	8.0	3.0	5.5	3.0
16							2.5	0.0	7.5	3.5	9.0	3.0
17							3.0	0.0	8.5	4.0	7.5	4.0
18							4.0	0.0	7.5	2.5	7.5	4.5
19							3.5	0.5	7.5	2.5	10.0	5.0
20							4.0	0.5	7.0	4.0	11.0	5.5
21							4.5	2.0	5.5	4.0	11.0	4.5
22							4.5	2.0	7.0	3.0	11.5	5.0
23							4.0	1.0	4.5	2.5	9.0	6.0
24							3.5	0.5	6.0	2.0	7.5	5.0
25							3.0	0.0	6.0	3.0	9.0	5.0
26							2.0	0.0	7.0	3.5	10.5	3.5
27							2.5	0.0	7.5	4.0	8.0	5.5
28							2.5	0.0	6.5	4.5	8.0	4.0
29							2.5	0.0	---	---	7.0	4.5
30							2.5	0.0	---	---	9.0	4.0
31							3.5	0.5	---	---	7.5	4.0
MONTH							4.5	0.0	8.5	0.0	11.5	3.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.5	5.5	12.0	9.0	17.0	11.5	21.0	18.5	23.5	19.0	21.0	14.5
2	11.5	5.5	12.5	8.0	16.5	9.5	22.0	15.5	26.0	19.5	21.5	15.5
3	12.5	5.0	11.5	8.0	15.5	10.5	20.0	15.0	26.0	19.0	22.0	15.5
4	13.0	6.0	11.5	6.5	19.5	11.5	19.5	15.0	25.5	19.0	22.5	17.0
5	12.5	6.0	9.5	6.5	21.0	13.0	19.0	13.0	25.0	18.0	23.0	17.5
6	12.0	5.5	11.5	6.0	22.0	15.0	21.5	13.0	24.5	18.0	22.5	17.0
7	13.0	6.0	10.5	6.5	19.5	15.5	22.5	14.5	25.5	19.5	21.0	---
8	9.5	7.0	12.0	6.0	20.0	14.5	23.0	16.0	24.5	18.5	---	---
9	8.0	5.5	11.0	7.0	17.0	13.5	22.5	16.0	24.0	18.5	---	---
10	10.0	4.0	10.0	7.5	15.5	14.0	22.5	15.0	25.0	18.0	---	---
11	12.0	6.0	10.5	7.0	18.5	13.0	23.5	15.0	25.5	18.5	---	---
12	12.5	5.5	12.0	7.0	20.5	13.5	23.5	17.0	23.5	19.0	---	---
13	11.5	7.5	13.5	7.0	19.0	13.0	23.0	15.5	24.5	18.5	---	---
14	11.5	5.5	12.5	8.0	20.0	13.0	23.5	15.5	24.0	18.5	---	---
15	12.5	6.0	12.0	7.5	20.5	13.0	24.0	16.0	24.5	18.0	---	---
16	12.0	7.5	12.0	7.0	21.0	13.5	24.5	16.5	25.5	18.0	---	---
17	11.0	5.0	12.0	7.5	18.0	15.5	25.0	17.0	23.5	18.5	---	---
18	11.0	7.0	10.5	7.0	19.5	14.5	23.0	17.5	23.5	18.5	---	---
19	11.5	4.5	15.0	6.5	20.5	14.5	25.0	17.5	23.5	18.0	---	---
20	11.0	5.5	15.5	9.0	19.0	14.5	25.0	17.5	22.5	18.0	---	---
21	14.0	7.0	16.0	9.5	22.0	14.0	25.0	17.5	23.5	18.5	---	---
22	13.5	7.0	12.5	9.5	23.5	16.0	25.0	17.5	23.0	17.0	---	---
23	14.0	8.0	11.0	8.5	23.0	16.5	26.0	18.5	23.0	17.5	---	---
24	13.0	8.5	14.5	8.0	23.0	15.5	25.5	18.5	21.5	19.0	---	---
25	11.0	8.0	13.0	8.5	24.0	16.0	24.5	18.5	19.5	16.5	---	---
26	13.0	6.5	12.0	8.5	24.0	16.5	24.5	17.0	19.0	16.0	---	---
27	14.5	7.0	12.5	6.5	23.5	17.0	24.0	16.5	19.0	14.5	---	---
28	11.5	8.0	14.5	7.0	23.5	15.5	23.5	16.5	21.5	17.0	5.5	---
29	12.5	9.0	15.5	8.0	24.0	16.5	24.0	16.5	22.0	16.0	---	---
30	12.0	9.5	16.0	9.5	22.5	17.0	24.5	17.0	21.5	17.0	---	---
31	---	---	18.0	10.5	---	---	25.0	17.5	20.5	15.0	---	---
MONTH	14.5	4.0	18.0	6.0	24.0	9.5	26.0	13.0	26.0	14.5	23.0	14.5

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

TURBIDITY (JTU), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	4	0	0	1	0	0
3	0	0	0	0	0	0	2	0	0	1	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	1	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	1	0	0	4	0	0
8	0	0	0	0	0	0	6	0	1	1	0	0
9	0	0	0	0	0	0	8	0	1	2	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	1	0	0	0	0	0	9	0	2
12	0	0	0	0	0	0	0	0	0	10	0	3
13	0	0	0	4	0	0	0	0	0	0	0	0
14	0	0	0	7	1	4	7	0	1	0	0	0
15	0	0	0	1	0	0	2	0	0	0	0	0
16	1	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	1	0	0	0	0	0	0	0	0
18	0	0	0	1	0	0	0	0	0	0	0	0
19	0	0	0	15	0	2	0	0	0	1	0	0
20	0	0	0	0	0	0	4	0	0	1	0	0
21	0	0	0	0	0	0	0	0	0	1	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	2	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	10	0	0
28	7	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	2	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	---	---	---	0	0	0	0	0	0
MONTH	7	0	0	15	0	0	8	0	0	10	0	0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	0	0	0	1	0	1	0	0	0	---	---	---
2	0	0	0	0	0	0	0	0	0	---	---	---
3	1	0	0	1	0	0	0	0	0	---	---	---
4	0	0	0	0	0	0	0	0	0	---	---	---
5	0	0	0	0	0	0	3	1	2	1	0	1
6	0	0	0	0	0	0	6	1	3	1	0	0
7	0	0	0	8	0	1	15	2	5	1	0	0
8	0	0	0	20	1	6	30	3	10	1	0	0
9	1	0	0	30	3	9	3	1	2	1	0	0
10	0	0	0	4	0	1	1	1	1	3	0	1
11	0	0	0	1	0	0	1	1	1	4	0	1
12	0	0	0	0	0	0	2	1	1	2	0	1
13	0	0	0	0	0	0	3	1	2	1	0	1
14	0	0	0	3	0	0	1	1	1	1	0	1
15	0	0	0	2	0	0	1	1	1	1	0	0
16	0	0	0	0	0	0	4	1	2	1	0	0
17	0	0	0	2	0	0	2	1	1	0	0	0
18	0	0	0	0	0	0	1	0	1	1	0	0
19	0	0	0	0	0	0	0	0	0	1	0	0
20	1	0	0	0	0	0	1	0	0	2	0	1
21	45	0	9	0	0	0	1	0	0	2	0	1
22	10	1	4	0	0	0	5	0	1	4	0	1
23	3	0	1	1	0	0	15	0	3	10	1	4
24	1	0	0	0	0	0	60	3	20	2	1	1
25	0	0	0	0	0	0	6	0	1	3	1	1
26	0	0	0	0	0	0	---	---	---	10	2	7
27	4	0	1	0	0	0	---	---	---	6	1	2
28	35	0	10	0	0	0	---	---	---	1	0	1
29	---	---	---	0	0	0	---	---	---	2	0	1
30	---	---	---	0	0	0	---	---	---	1	0	1
31	---	---	---	0	0	0	---	---	---	1	0	1
MONTH	45	0	0	30	0	0	60	0	2	10	0	1

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

TURBIDITY (JTU), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	2	0	1	---	---	---	2	1	1	1	0	0
2	1	0	1	---	---	---	2	1	1	1	0	1
3	1	0	0	---	---	---	3	1	1	1	0	1
4	1	0	0	---	---	---	2	1	1	1	0	1
5	1	0	1	---	---	---	2	2	2	1	0	1
6	1	0	1	---	---	---	3	2	2	1	0	1
7	8	0	1	---	---	---	20	3	7	1	0	0
8	1	0	1	---	---	---	---	---	---	1	0	0
9	2	0	1	---	---	---	---	---	---	1	0	0
10	2	1	1	1	0	0	---	---	---	1	0	0
11	3	1	2	5	0	0	---	---	---	1	0	0
12	100	1	15	1	0	0	---	---	---	0	0	0
13	850	10	130	2	0	0	---	---	---	0	0	0
14	50	8	15	0	0	0	---	---	---	0	0	0
15	8	3	4	1	0	0	---	---	---	0	0	0
16	4	2	3	0	0	0	---	---	---	0	0	0
17	4	1	2	6	0	0	---	---	---	0	0	0
18	2	1	2	1	0	0	0	0	0	0	0	0
19	2	1	1	1	0	0	0	0	0	10	0	2
20	1	1	1	8	0	1	1	0	0	2	0	0
21	1	1	1	5	0	0	1	0	0	1	0	0
22	1	1	1	1	0	0	2	0	0	1	0	0
23	1	1	1	0	0	0	1	0	1	0	0	0
24	---	---	---	2	0	0	1	0	1	0	0	0
25	---	---	---	2	0	0	1	0	1	1	0	0
26	---	---	---	170	2	45	1	0	0	1	0	0
27	---	---	---	6	2	4	1	0	0	70	0	6
28	---	---	---	4	1	2	1	0	0	180	10	55
29	---	---	---	7	1	2	1	0	1	25	1	8
30	---	---	---	15	1	2	1	0	1	5	0	1
31	---	---	---	4	1	1	1	0	0	---	---	---
MONTH	850	0	8	170	0	2	20	0	0	180	0	2

14366000 APPLEGATE RIVER NEAR APPLEGATE, OR

LOCATION.--Lat 42°14'30", long 123°08'20", in NE¼ sec.26, T.38 S., R.4 W., Jackson County, Hydrologic Unit 17100309, on left bank 0.9 mi (1.4 km) downstream from Keeler Creek, 1.8 mi (2.9 km) southeast of Applegate, and at mile 26.7 (43.0 km).

DRAINAGE AREA.--483 mi^2 (1,251 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year.

REVISED RECORDS.--WSP 1738: Drainage area. WSP 1935: 1953(M), 1956(M). WDR OR-76-1: 1956(M), 1965(M).

GAGE.--Water-stage recorder. Datum of gage is 1.285.33 ft (391.769 m) above mean sea level. Prior to Dec. 23, 1938, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good. No appreciable regulation. Many diversions for irrigation above station. McDonald Creek Canal diverts from McDonald Creek above station for irrigation in Bear Creek basin. Thompson Creek Irrigation Association ditch diverts above station for irrigation in Thompson Creek basin. Fowler-Keeler and Berryman ditches divert above station for irrigation below.

AVERAGE DISCHARGE.--39 years, 552 ft^3/s (15.63 m^3/s), 399,900 acre-ft/yr (493 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,200 ft^3/s (1,050 m^3/s) Jan. 15, 1974, gage height, 20.41 ft (6.221 m), from rating curve extended above 18,000 ft^3/s (510 m^3/s) on basis of average of slope-area measurements of flow at gage heights 18.00 ft (5.486 m) and 19.57 ft (5.965 m); minimum, 6.0 ft^3/s (0.17 m^3/s) Aug. 4, 1977, affected by manipulation of irrigation diversions above station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 20, 1927, reached a stage of 18.7 ft (5.70 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,070 ft^3/s (30.3 m^3/s) Sept. 28, gage height, 3.46 ft (1.055 m), no peak above base of 2,500 ft^3/s (70.8 m^3/s); minimum, 6.0 ft^3/s (0.17 m^3/s) Aug. 4, affected by manipulation of irrigation diversions above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	64	60	60	57	121	92	223	218	17	12	18
2	49	64	57	70	55	94	90	253	203	36	8.5	16
3	49	64	55	70	54	89	87	259	185	24	6.5	15
4	45	61	58	65	58	83	94	250	176	24	8.5	15
5	46	58	60	65	55	78	139	215	182	26	18	14
6	44	57	60	60	57	82	179	203	179	24	18	15
7	43	55	60	85	57	89	209	194	179	25	21	17
8	43	55	60	70	58	155	312	182	162	19	29	15
9	40	55	65	65	68	203	262	182	147	14	30	15
10	36	53	65	60	64	157	197	191	149	16	26	13
11	33	55	62	70	61	125	173	203	160	16	23	13
12	31	62	62	85	60	116	168	212	139	11	19	13
13	29	60	60	72	60	110	197	197	203	12	20	13
14	30	87	60	68	60	100	197	194	182	11	18	13
15	30	100	60	65	58	94	179	188	142	11	17	13
16	32	90	60	62	58	90	209	182	123	15	19	14
17	35	76	62	64	54	85	200	182	114	19	20	13
18	36	70	65	65	49	83	162	173	114	19	18	14
19	36	68	75	68	49	82	147	173	104	17	18	22
20	35	67	70	68	49	83	132	171	94	14	18	53
21	32	67	65	70	98	85	128	179	85	13	20	42
22	33	67	55	70	128	94	130	200	78	12	18	32
23	37	65	50	68	100	123	130	288	73	12	16	29
24	40	61	50	65	100	130	139	272	64	9.6	18	30
25	50	61	50	61	85	116	160	241	44	9.6	18	44
26	54	61	55	55	78	104	165	291	36	12	19	30
27	50	60	55	60	78	104	142	319	33	12	19	25
28	49	55	55	60	100	108	144	265	27	11	18	505
29	54	58	55	57	---	100	162	241	15	12	17	557
30	55	61	55	57	---	98	200	226	15	12	18	226
31	55	---	55	62	---	94	---	218	---	12	19	---
TOTAL	1276	1937	1836	2042	1908	3275	4925	6767	3625	497.2	567.5	1854
MEAN	41.2	64.6	59.2	65.9	68.1	106	164	218	121	16.0	18.3	61.8
MAX	55	100	75	85	128	203	312	319	218	36	30	557
MIN	29	53	50	55	49	78	87	171	15	9.6	6.5	13
AC-FT	2530	3840	3640	4050	3780	6500	9770	13420	7190	986	1130	3680

CAL YR 1976 TOTAL 89959.0 MEAN 246 MAX 1350 MIN 13 AC-FT 178400
WTR YR 1977 TOTAL 30589.7 MEAN 83.6 MAX 557 MIN 6.5 AC-FT 60520

NOTE.--No gage-height record Dec. 5 to Jan. 12.

14366000 APPLEGATE RIVER NEAR APPLEGATE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1973 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28.0°C July 29, 30, Aug. 3, 4, 1974; minimum, 0.0°C Jan. 31, Feb. 1, 1975, Jan. 2, Feb. 5-7, Dec. 19-22, 24, 1976, Jan. 6-9, 25-28, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 26.5°C Aug. 4; minimum, 0.0°C Dec. 19-22, 24, Jan. 6-9, 25-28.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.5	16.5	13.5	11.5	3.5	1.5	2.5	1.0	5.0	2.5	7.0	5.5
2	18.5	16.0	13.5	11.0	3.0	1.5	3.0	2.0	4.5	1.5	6.5	5.5
3	16.5	13.5	13.0	11.0	3.5	1.0	3.5	2.0	4.5	1.0	7.5	5.5
4	15.5	12.0	12.0	9.5	3.0	1.5	4.0	2.5	5.0	1.5	9.0	5.0
5	16.0	12.0	10.5	8.0	3.0	1.0	4.0	2.5	4.5	3.0	10.0	5.0
6	16.5	13.0	9.5	7.5	3.0	1.5	2.0	0.0	6.0	2.5	8.5	6.0
7	17.0	13.5	10.0	7.0	3.5	1.5	1.0	0.0	6.0	3.0	10.0	7.0
8	17.0	14.0	10.0	8.0	4.0	2.0	0.5	0.0	7.0	4.5	9.0	6.0
9	16.5	13.5	9.5	7.5	4.5	3.5	0.5	0.0	7.0	4.0	9.0	6.5
10	15.5	13.0	10.0	8.5	3.5	2.0	3.0	0.5	8.0	5.0	10.0	5.5
11	16.0	13.5	10.5	8.5	3.0	1.5	2.5	0.5	8.0	4.5	9.0	5.0
12	15.5	12.5	10.5	8.5	2.5	1.0	3.0	1.5	8.5	5.0	9.0	6.0
13	15.0	12.0	9.5	7.0	3.0	1.5	3.5	2.0	8.5	5.5	8.5	5.0
14	14.5	12.0	8.5	7.5	3.0	1.5	4.0	2.5	8.5	5.0	8.0	4.0
15	14.0	11.5	11.0	8.5	3.0	1.5	3.5	1.5	9.0	5.5	7.5	5.0
16	14.0	11.5	12.0	10.0	3.0	1.5	3.0	1.5	9.0	5.5	9.5	4.5
17	13.5	10.5	11.5	10.5	2.5	1.5	3.0	1.0	9.0	6.5	8.5	5.5
18	13.0	10.0	11.0	10.5	2.0	0.5	3.5	1.0	8.0	5.0	9.0	6.0
19	12.5	10.0	10.5	9.5	1.0	0.0	3.0	1.0	8.5	5.0	11.5	7.5
20	12.5	9.5	9.0	6.5	0.5	0.0	3.5	1.0	7.5	6.0	12.0	7.0
21	12.5	10.0	8.5	6.5	0.5	0.0	4.5	2.5	7.0	6.0	12.5	6.5
22	12.0	10.0	8.0	6.0	1.0	0.0	4.0	2.0	8.0	5.0	13.5	7.5
23	11.5	9.5	7.0	5.0	2.0	0.5	3.5	1.5	6.5	5.0	10.5	8.0
24	11.0	9.0	6.5	5.0	2.0	0.0	3.0	1.0	7.5	4.0	---	6.5
25	11.0	9.5	7.0	6.0	2.5	0.5	2.5	0.0	7.5	5.5	---	---
26	10.5	8.0	6.0	4.5	3.0	1.0	2.5	0.0	8.5	5.5	---	---
27	10.5	8.0	4.5	2.0	4.0	2.5	3.0	0.0	9.5	6.5	---	---
28	10.0	7.5	3.0	1.0	3.5	2.0	3.0	0.0	9.0	7.0	---	---
29	11.0	9.5	3.5	1.0	3.0	2.0	3.0	0.5	---	---	---	---
30	12.0	10.5	3.5	1.5	3.0	2.0	3.5	0.5	---	---	---	---
31	13.0	10.0	---	---	2.5	1.0	4.5	2.0	---	---	---	---
MONTH	19.5	7.5	13.5	1.0	4.5	0.0	4.5	0.0	9.5	1.0	13.5	4.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	14.5	11.5	19.0	14.5	23.0	18.5	23.0	19.5	21.5	16.5
2	---	---	14.5	11.0	18.5	12.5	21.5	16.5	26.0	19.5	21.5	17.5
3	---	---	14.5	11.0	16.5	12.5	19.5	16.5	26.0	20.0	22.5	17.0
4	---	---	13.5	9.5	21.5	13.5	20.5	16.0	26.5	20.0	23.0	18.0
5	---	---	13.0	9.0	23.5	15.5	19.0	15.0	24.5	19.0	23.0	19.0
6	---	---	13.5	8.5	24.0	17.5	21.0	15.0	24.5	19.0	22.5	17.5
7	---	---	13.5	9.5	22.5	18.0	22.0	16.5	25.0	20.0	21.5	18.0
8	---	---	16.0	8.5	21.0	15.5	22.5	17.5	24.0	20.0	21.0	17.0
9	---	---	14.5	10.0	19.5	15.5	22.0	17.0	23.5	19.5	20.5	16.0
10	---	---	12.5	10.0	17.0	15.5	22.0	16.0	24.5	19.0	20.5	15.5
11	---	---	13.0	9.0	20.5	14.5	23.0	16.5	25.5	19.5	20.5	16.5
12	---	---	14.5	9.5	22.0	15.0	23.0	18.0	24.0	20.5	20.5	15.5
13	---	---	16.0	9.5	21.0	16.0	22.5	16.0	24.0	19.5	20.5	16.5
14	---	---	15.5	11.0	22.0	15.5	23.5	16.5	23.5	19.5	19.5	16.5
15	---	---	14.0	10.5	22.0	15.0	23.5	17.0	24.0	19.0	17.5	15.0
16	---	---	14.0	9.5	22.5	15.5	23.5	17.5	25.0	19.5	16.0	14.0
17	---	---	15.5	9.5	20.0	17.0	23.0	18.0	23.0	20.0	16.5	14.5
18	---	---	12.5	9.5	20.5	16.5	23.5	18.5	23.0	18.5	18.0	15.0
19	14.5	---	17.0	8.5	21.5	16.0	24.0	19.0	23.5	19.0	18.0	16.0
20	14.0	8.0	19.0	12.0	20.5	16.0	24.0	18.5	22.5	18.5	18.0	15.5
21	16.0	9.5	17.5	12.0	23.0	15.5	24.0	18.5	23.0	19.0	17.5	15.0
22	15.5	9.5	14.5	11.0	24.0	18.5	25.0	19.0	23.0	17.5	17.0	13.5
23	16.0	10.5	14.0	10.0	23.5	18.5	25.5	19.5	23.5	18.5	16.0	15.0
24	15.0	11.0	16.0	10.0	23.5	17.0	24.5	19.5	21.5	19.0	17.0	14.0
25	12.5	10.0	15.0	11.0	23.5	18.0	24.0	19.0	19.5	17.5	18.5	15.5
26	16.0	8.5	15.5	11.0	23.5	18.0	24.5	18.5	20.0	16.5	18.5	15.5
27	17.0	9.5	14.5	8.5	23.0	19.0	23.0	17.5	19.5	16.5	17.5	16.0
28	14.0	10.5	16.5	9.5	23.5	17.5	23.0	17.0	22.0	18.0	16.0	13.5
29	15.5	11.5	17.5	10.5	23.5	18.0	24.0	17.5	22.5	18.0	15.0	12.5
30	16.0	12.0	17.5	11.5	22.0	17.5	24.5	17.5	22.5	19.0	15.5	11.5
31	---	---	20.0	13.0	---	---	24.5	18.5	21.0	16.5	---	---
MONTH	17.0	8.0	20.0	8.5	24.0	12.5	25.5	15.0	26.5	16.5	23.0	11.5

14370400 ROGUE RIVER NEAR MERLIN, OR

LOCATION.--Lat 42°29'50", long 123°29'15", in SE¼ sec.26, T.35 S., R.7 W., Josephine County, Hydrologic Unit 17100310, on left bank at Robertson Bridge, 3.4 mi (5.5 km) upstream from Jumpoff Joe Creek, 3.7 mi (6.0 km) southwest of Merlin, and at mile 86.8 (139.7 km).

DRAINAGE AREA.--3,271 mi² (5,263 km²).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: February 1974 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 25.5°C Aug. 3-5, 1977; minimum, 0.0°C Jan. 9, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 25.5°C Aug. 3-5; minimum, 0.0°C Jan. 9.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	16.0	11.0	10.0	4.0	2.5	3.5	3.0	5.0	3.5	9.0	7.0
2	17.5	16.0	12.0	11.0	4.0	3.0	3.5	3.0	5.5	4.0	8.0	7.5
3	16.0	14.5	12.0	11.5	4.0	3.5	4.0	3.0	5.5	3.5	8.5	6.5
4	15.0	13.0	12.0	11.5	4.5	3.0	4.5	3.5	5.5	3.5	9.0	6.5
5	15.0	13.0	11.5	10.5	4.5	3.0	5.0	3.5	4.5	3.5	9.5	6.5
6	15.0	13.0	10.5	9.5	4.5	3.5	3.5	2.5	6.0	4.0	9.5	7.0
7	15.5	13.5	9.5	9.0	4.0	3.0	2.5	1.5	6.0	5.0	9.0	7.5
8	16.0	14.0	9.5	9.0	4.5	3.0	2.0	0.5	7.5	5.0	9.5	7.5
9	16.0	14.0	9.0	8.5	4.5	3.5	1.0	0.0	7.0	5.5	9.5	7.5
10	16.0	13.5	9.5	8.5	5.5	4.5	2.0	0.5	8.0	6.0	9.5	7.0
11	15.5	13.5	10.0	8.5	4.5	4.5	2.5	2.0	9.0	6.5	9.5	7.0
12	15.0	13.0	10.0	9.0	4.5	4.0	4.0	2.5	9.0	7.0	10.0	7.0
13	14.5	12.5	9.5	9.0	4.0	4.0	4.5	4.0	9.5	7.0	8.5	6.5
14	14.0	11.5	9.0	8.5	4.0	3.5	5.0	4.0	9.0	7.0	9.0	6.5
15	13.5	11.0	9.5	8.5	4.0	3.5	4.5	4.0	9.5	7.0	8.5	6.5
16	13.0	11.0	10.5	9.5	4.0	3.5	4.5	4.0	9.0	7.0	9.5	6.5
17	12.5	10.5	10.5	10.0	4.0	3.5	3.5	3.5	10.0	7.5	9.5	7.0
18	12.0	10.0	11.0	10.0	4.0	3.5	4.0	3.5	9.5	7.0	9.5	7.0
19	11.5	9.5	11.0	10.0	3.5	3.0	3.5	3.5	12.5	4.0	10.5	8.0
20	11.5	9.0	10.0	8.5	3.0	2.5	4.0	3.5	10.5	4.0	11.5	7.5
21	11.0	9.0	9.0	7.5	2.0	1.5	4.5	3.5	8.5	6.5	12.5	8.5
22	11.0	9.5	7.5	7.0	2.0	1.5	4.5	3.5	8.5	7.0	12.5	8.5
23	11.0	9.0	7.5	7.0	3.0	1.5	5.0	4.0	8.0	6.5	12.0	9.5
24	9.5	9.0	7.0	6.5	3.0	2.0	4.5	4.0	8.0	6.0	11.0	9.0
25	10.0	8.5	7.5	6.5	3.5	2.5	4.5	3.5	8.0	6.5	12.0	8.5
26	9.5	8.5	7.0	5.5	3.0	2.5	4.0	2.5	8.5	6.5	12.0	8.0
27	9.5	8.5	5.5	4.0	4.0	3.0	3.5	1.5	9.5	7.5	12.0	9.0
28	9.5	8.5	4.5	3.5	4.0	4.0	3.5	1.5	9.5	8.0	11.5	8.5
29	9.5	8.5	3.5	2.5	4.5	4.0	3.5	2.0	---	---	10.5	8.0
30	10.5	9.0	3.5	2.5	4.0	3.5	3.0	1.5	---	---	11.0	7.5
31	10.5	9.5	---	---	4.0	3.5	4.5	2.5	---	---	10.0	7.5
MONTH	18.5	8.5	12.0	2.5	5.5	1.5	5.0	0.0	12.5	3.5	12.5	6.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	8.5	15.5	14.5	20.0	18.0	23.0	21.5	23.5	21.5	21.5	19.0
2	12.0	9.5	16.0	14.0	20.5	17.5	22.0	19.5	24.5	22.0	21.5	19.5
3	13.5	9.5	15.5	13.5	20.0	18.0	21.0	19.0	25.5	22.0	21.5	19.5
4	14.0	10.5	15.5	12.5	21.5	17.5	20.5	18.5	25.5	22.0	22.0	20.0
5	14.5	12.0	14.5	12.5	23.0	19.5	20.0	18.0	25.5	22.0	22.0	20.5
6	15.5	12.5	15.0	11.5	24.0	21.5	20.5	17.0	24.5	22.0	22.0	19.5
7	16.0	13.5	14.5	12.0	24.5	22.5	21.0	18.5	25.0	22.5	21.5	20.0
8	15.5	13.5	16.0	11.5	23.0	21.5	21.5	19.0	24.5	22.0	20.5	19.5
9	14.5	12.5	16.0	13.0	22.0	19.5	22.0	19.5	23.5	21.5	20.0	18.0
10	14.0	11.5	15.5	13.0	21.5	19.5	22.0	19.5	23.5	21.5	20.0	18.0
11	14.5	12.0	15.0	13.0	21.5	18.5	23.0	20.0	25.0	22.0	20.0	18.0
12	14.5	12.0	16.5	12.5	21.0	18.5	22.5	20.5	24.0	22.0	20.0	17.5
13	15.0	13.5	16.5	12.5	21.5	18.5	22.5	19.5	24.5	21.5	20.0	18.5
14	15.5	12.0	16.5	14.0	22.5	19.5	23.0	20.0	24.0	21.5	20.0	18.5
15	16.0	13.0	16.0	14.0	22.5	19.5	23.0	21.0	24.0	21.0	19.0	16.5
16	16.0	13.5	15.5	13.5	22.5	19.5	23.0	20.5	24.5	21.5	17.0	16.0
17	15.0	12.5	15.5	13.0	22.0	19.5	23.5	21.0	24.5	22.0	17.0	15.5
18	14.5	12.0	15.0	12.5	22.0	19.5	23.0	21.5	24.0	21.0	16.5	15.0
19	16.5	7.0	16.5	12.0	21.5	19.5	24.0	20.5	24.0	21.0	16.5	15.5
20	20.0	4.5	18.0	13.5	20.5	18.0	24.0	21.0	22.0	21.0	17.0	15.0
21	16.5	11.5	18.5	15.5	22.0	18.5	24.0	21.0	22.5	20.5	17.5	15.5
22	17.0	12.0	18.0	15.0	22.0	20.0	24.5	21.5	22.5	20.0	17.5	14.5
23	16.5	13.5	16.5	14.5	23.0	20.5	25.0	22.0	22.5	20.0	17.0	15.0
24	16.0	14.0	16.5	12.5	23.5	21.0	24.5	22.0	21.5	20.5	17.0	14.5
25	14.5	13.5	16.0	13.5	24.0	21.5	24.5	22.0	20.0	19.0	17.0	15.0
26	16.0	12.0	16.5	14.0	24.0	21.0	24.5	21.0	20.0	18.5	18.0	15.0
27	16.5	10.0	16.5	13.5	23.0	21.5	24.5	20.5	19.5	18.0	17.5	15.5
28	16.5	9.0	17.0	12.5	23.0	20.5	23.0	20.0	20.0	18.0	16.5	15.0
29	16.5	14.0	18.5	13.5	23.0	21.0	23.0	20.0	21.0	18.0	16.0	14.0
30	17.0	15.0	19.5	15.0	23.5	20.5	24.0	20.5	21.0	19.0	15.0	13.5
31	---	---	20.5	16.5	---	---	24.0	21.0	21.0	18.5	---	---
MONTH	20.0	4.5	20.5	11.5	24.5	17.5	25.0	17.0	25.5	18.0	22.0	13.5

14371500 GRAVE CREEK AT PEASE BRIDGE, NEAR PLACER, OR

LOCATION.--Lat 42°38'30", long 123°12'40", in SE¼ sec.6, T.34 S., R.4 W., Josephine County, Hydrologic Unit 17100310, on right bank 0.5 mi (0.8 km) downstream from Pease Bridge, 0.5 mi (0.8 km) upstream from Boulder Creek, 5.4 mi (8.7 km) east of Placer, and at mile 27.1 (43.6 km).

DRAINAGE AREA.--22.1 mi^2 (57.2 km^2) at measuring site 0.5 mi (0.8 km) upstream.

PERIOD OF RECORD.--October 1940 to current year. Prior to October 1945 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,354.2 ft (717.56 m) above mean sea level (Bureau of Reclamation bench mark). Prior to Aug. 4, 1955, at sites 0.5 mi (0.8 km) upstream at datum 29.9 ft (9.11 m) higher.

REMARKS.--Records good. No regulation. One small diversion above station. Prior to 1945, Columbia upper ditch diverted water about 2 mi (3 km) above station, bypassing station. Records herein are for measuring site.

AVERAGE DISCHARGE.--32 years (water years 1946-77), 59.4 ft^3/s (1.682 m^3/s), 36.50 in/yr (927 mm/yr), 43,040 acre-ft/yr (53.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,240 ft^3/s (177 m^3/s) Dec. 22, 1964, gage height, 11.20 ft (3.414 m), from rating curve extended above 1,200 ft^3/s (34.0 m^3/s) on basis of slope-area measurement at gage height 9.66 ft (2.944 m); minimum, 0.12 ft^3/s (0.003 m^3/s) July 15, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 76 ft^3/s (2.15 m^3/s) Mar. 8, gage height, 2.24 ft (0.683 m), no peak above base of 850 ft^3/s (24.1 m^3/s); minimum, 0.35 ft^3/s (0.010 m^3/s) Aug. 21-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	4.9	2.9	3.4	4.2	35	31	11	19	4.2	.76	.92
2	2.0	5.1	2.5	5.3	4.7	28	32	17	17	9.9	.71	.92
3	2.2	4.0	2.7	5.5	4.9	30	33	26	16	5.1	.67	.80
4	2.0	3.4	2.7	4.7	4.0	28	46	31	14	4.4	.62	.80
5	2.0	3.2	2.7	4.4	3.8	26	60	33	13	4.0	.62	.76
6	2.0	3.0	2.7	4.2	4.4	29	60	36	12	3.6	.58	.76
7	1.9	2.9	2.7	4.2	4.4	37	60	39	11	3.2	.58	.71
8	1.7	2.7	3.2	4.2	4.9	67	57	33	10	3.0	.58	.71
9	1.6	2.7	5.1	4.2	5.3	67	45	29	10	2.9	.53	.67
10	1.6	2.7	4.2	4.2	5.1	47	35	26	9.9	2.7	.53	.67
11	1.6	2.7	3.8	4.2	5.1	40	31	29	10	2.5	.50	.62
12	1.4	2.7	3.6	5.5	5.1	40	30	28	9.6	2.3	.50	.62
13	1.4	2.9	3.4	6.2	5.1	35	31	25	8.4	2.3	.47	.58
14	1.3	4.0	3.2	6.7	5.1	29	29	22	8.4	2.0	.47	.58
15	1.3	6.2	3.2	6.2	4.7	24	25	20	8.1	1.9	.43	.58
16	1.3	5.5	3.0	6.0	4.4	21	24	26	7.0	1.7	.43	.62
17	1.3	4.4	2.8	5.3	4.4	20	21	44	7.3	1.4	.40	.67
18	1.3	4.0	2.6	5.5	4.2	21	18	44	7.8	1.4	.40	.86
19	1.3	3.8	2.3	6.2	3.8	26	16	37	7.6	1.6	.40	2.5
20	1.3	3.4	2.5	7.0	4.0	33	15	31	7.6	1.7	.40	2.7
21	1.3	3.2	2.5	7.3	9.9	35	14	27	7.8	1.4	.40	1.9
22	1.3	3.2	2.9	7.8	13	44	13	26	7.0	1.3	.37	1.3
23	1.3	3.0	2.9	7.0	13	55	13	42	6.7	1.2	.37	1.3
24	1.9	2.9	3.4	6.0	11	50	12	50	6.2	1.1	.80	1.9
25	3.8	2.9	2.9	6.7	9.9	48	12	42	6.2	1.0	2.5	1.9
26	3.2	2.9	3.2	6.7	12	43	12	41	5.3	.92	2.5	1.6
27	2.5	2.7	4.2	6.7	20	47	11	37	5.1	.92	1.9	1.6
28	2.3	2.5	3.8	6.2	52	44	11	33	4.7	.92	1.6	33
29	2.7	2.9	3.6	5.8	---	38	11	29	4.2	.86	1.3	22
30	3.0	2.9	3.6	5.5	---	34	9.9	24	4.0	.80	1.2	8.6
31	3.2	---	3.4	4.2	---	31	---	22	---	.76	1.0	---
TOTAL	59.0	103.3	98.2	173.0	232.4	1152	817.9	960	270.9	72.98	24.52	93.15
MEAN	1.90	3.44	3.17	5.58	8.30	37.2	27.3	31.0	9.03	2.35	.79	3.11
MAX	3.8	6.2	5.1	7.8	52	67	60	50	19	9.9	2.5	33
MIN	1.3	2.5	2.3	3.4	3.8	20	9.9	11	4.0	.76	.37	.58
CFSM	.09	.16	.14	.25	.38	1.68	1.24	1.40	.41	.11	.04	.14
IN.	.10	.17	.17	.29	.39	1.94	1.38	1.62	.46	.12	.04	.16
AC-FT	117	205	195	343	461	2280	1620	1900	537	145	49	185

CAL YR 1976 TOTAL 10211.20 MEAN 27.9 MAX 550 MIN 1.2 CFSM 1.26 IN 17.19 AC-FT 20250
WTR YR 1977 TOTAL 4057.35 MEAN 11.1 MAX 67 MIN .37 CFSM .50 IN 6.83 AC-FT 8050

14372250 ROGUE RIVER AT MARIAL, OR

LOCATION.--Lat 42°43'00", long 123°53'05", in NW¼SE¼ sec.9, T.33 S., R.10 W., Curry County, Hydrologic Unit 17100310, on right bank 0.2 mi (0.3 km) downstream from Mule Creek and at mile 48.2 (77.6 km).

DRAINAGE AREA.--3,812 mi² (6,134 km²).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June 1974 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 27.5°C Aug. 5, 1977; minimum recorded, 1.5°C Jan. 11, 1977, but may have been lower during period of no record.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.5°C Aug. 5; minimum recorded, 1.5°C Jan. 11, but may have been lower during period of no record.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	18.0	11.5	11.0	3.5	3.0	---	---	4.5	4.0	8.5	8.0
2	18.5	17.5	12.0	11.5	3.5	3.5	---	---	4.5	4.5	8.5	7.5
3	18.0	16.0	12.5	12.0	---	---	---	---	4.5	4.5	8.0	7.5
4	16.0	15.0	13.0	12.5	---	---	---	---	5.0	4.5	8.5	7.5
5	15.5	14.5	12.5	12.0	---	---	---	---	5.0	5.0	8.5	8.0
6	15.0	14.5	12.0	11.5	---	---	---	---	5.5	5.0	8.5	8.5
7	15.5	14.5	11.5	11.0	---	---	---	---	6.5	5.5	9.0	8.5
8	15.5	15.0	11.0	10.5	---	---	---	---	7.0	6.5	9.0	8.5
9	16.0	15.5	10.5	10.0	---	---	---	---	7.0	6.5	9.0	8.0
10	16.0	15.5	10.0	10.0	---	---	1.5	---	7.5	7.0	9.0	8.0
11	16.0	15.5	10.0	9.5	---	---	3.0	1.5	8.0	7.5	9.0	8.0
12	15.5	15.0	10.0	10.0	---	---	4.0	3.0	8.5	8.0	8.5	8.0
13	15.0	14.5	10.0	10.0	---	---	4.5	4.0	9.0	8.5	9.0	8.0
14	14.5	14.0	10.5	10.0	---	---	5.0	4.5	9.0	8.5	8.5	7.5
15	14.0	13.0	10.0	9.5	---	---	5.0	5.0	9.0	8.5	8.5	7.5
16	13.5	12.5	10.0	10.0	---	---	5.0	5.0	9.0	8.5	8.5	7.5
17	13.0	12.0	11.0	10.0	---	---	5.0	5.0	9.0	8.5	8.5	8.0
18	12.5	12.0	11.5	11.0	---	---	5.0	4.5	9.0	8.5	9.0	8.5
19	12.0	11.5	11.0	11.0	---	---	4.5	4.5	9.0	8.5	9.5	9.0
20	11.5	11.0	11.0	10.5	---	---	4.5	4.0	9.0	8.5	10.0	9.5
21	11.5	10.5	10.5	9.5	---	---	4.5	4.0	9.0	8.0	10.5	10.0
22	11.0	10.5	9.5	9.0	---	---	5.0	4.5	8.5	7.5	11.0	10.5
23	11.0	10.5	9.0	8.0	---	---	5.0	5.0	8.0	7.5	11.5	10.5
24	11.0	10.5	8.0	8.0	---	---	5.0	5.0	7.5	7.0	11.0	10.5
25	10.5	10.5	8.0	7.5	---	---	5.0	4.5	7.5	7.0	11.0	10.0
26	10.5	10.0	7.5	7.0	---	---	4.5	4.0	8.0	7.5	11.5	10.0
27	10.0	9.5	7.0	5.5	---	---	4.0	3.0	8.5	8.0	11.5	10.5
28	10.0	9.5	5.5	4.5	---	---	3.5	2.5	8.5	8.0	11.0	10.0
29	10.0	9.5	4.5	4.0	---	---	3.0	2.5	---	---	10.5	9.5
30	10.5	10.0	4.0	3.0	---	---	3.5	3.0	---	---	10.0	9.5
31	11.0	10.0	---	---	---	---	4.0	3.5	---	---	10.0	9.5
MONTH	18.5	9.5	13.0	3.0	---	---	5.0	1.5	9.0	4.0	11.5	7.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	9.5	16.5	16.0	19.5	18.5	25.5	22.0	24.0	23.0	22.0	20.0
2	11.5	9.5	16.5	16.0	20.0	18.5	23.5	21.5	24.5	23.5	22.0	20.0
3	12.0	11.0	16.0	15.0	19.0	18.0	22.0	20.5	25.0	23.5	22.5	21.0
4	13.0	12.0	15.5	14.5	19.5	18.0	21.5	20.0	27.0	23.5	23.0	21.5
5	14.0	12.5	14.5	13.5	21.5	18.5	20.0	19.0	27.5	23.5	23.5	21.5
6	14.5	13.0	14.0	13.5	23.5	21.0	21.0	18.5	26.0	23.5	22.5	21.0
7	15.0	13.5	14.0	13.0	24.5	22.0	21.5	19.5	25.0	23.5	22.5	21.5
8	15.0	14.0	15.0	13.5	24.0	22.0	22.0	19.5	27.0	23.5	22.0	20.5
9	14.5	13.5	15.5	14.5	23.0	21.5	22.5	20.0	24.5	24.0	21.5	20.0
10	13.5	13.0	15.0	14.5	21.5	20.0	22.5	20.5	24.0	23.5	21.0	19.5
11	14.5	13.0	15.0	14.5	21.5	19.5	23.0	21.0	25.5	23.0	21.0	19.5
12	15.0	13.5	15.0	14.0	21.5	19.5	23.5	21.5	26.5	23.5	20.5	19.0
13	15.0	13.5	15.5	14.0	22.0	20.0	23.5	21.5	24.5	23.0	21.0	19.5
14	15.0	13.5	15.5	15.0	22.5	20.5	23.5	21.5	24.0	23.0	21.0	19.5
15	15.0	14.0	15.5	14.5	22.5	21.0	25.5	21.5	24.5	23.0	19.5	18.5
16	15.5	14.5	15.0	14.5	23.0	21.0	26.0	22.0	24.5	23.0	18.5	17.5
17	16.0	13.5	15.5	14.5	22.0	21.5	24.5	22.0	24.5	23.0	17.5	17.0
18	15.5	14.0	15.0	14.0	22.5	20.5	23.5	22.0	24.0	23.0	17.0	16.5
19	15.5	13.5	15.5	14.0	22.0	20.5	24.0	21.5	25.0	22.5	16.5	16.0
20	14.5	13.5	16.5	15.0	21.5	20.5	24.0	22.0	23.5	22.5	17.0	16.5
21	15.0	13.5	17.5	16.5	22.0	20.0	25.0	22.0	23.5	22.0	16.5	16.5
22	16.0	14.0	17.0	16.0	23.0	20.0	26.5	22.5	23.5	21.5	17.0	16.0
23	16.5	14.0	16.0	15.0	24.0	21.5	27.0	23.0	23.5	22.0	17.0	16.5
24	16.5	15.0	16.5	15.0	24.0	22.0	25.0	23.5	22.5	22.0	17.0	16.0
25	16.0	15.0	16.0	14.5	24.5	22.0	24.5	23.0	22.0	21.0	16.5	16.0
26	16.5	14.5	16.0	14.0	25.0	22.5	24.5	22.5	21.0	20.0	17.5	16.5
27	16.5	15.0	15.5	14.5	24.5	22.5	24.5	22.5	20.0	19.5	17.0	16.5
28	16.5	15.5	16.5	14.0	23.5	22.5	24.5	22.5	20.5	19.5	16.5	15.5
29	16.5	15.0	17.0	14.5	24.0	22.5	24.0	22.0	21.5	20.0	16.0	15.0
30	16.5	15.5	18.0	16.0	23.0	22.0	26.0	22.0	22.0	20.0	15.5	14.5
31	---	---	18.5	17.5	---	---	24.0	22.5	22.0	20.0	---	---
MONTH	16.5	9.5	18.5	13.0	25.0	18.0	27.0	18.5	27.5	19.5	23.5	14.5

14372300 ROGUE RIVER NEAR AGNESS, OR
(National stream-quality accounting network station)

LOCATION.--Lat 42°34'50", long 124°03'30", in NE¼NW¼ sec.6, T.35 S., R.11 W., Curry County, Hydrologic Unit 17100310, on left bank 0.8 mi (1.3 km) upstream from Shasta Costa Creek, 1.5 mi (2.4 km) north of Agness, 2.6 mi (4.2 km) upstream from Illinois River, and at mile 29.7 (47.8 km).

DRAINAGE AREA.--3,939 mi^2 (10,202 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 113.81 ft (34.689 m) above mean sea level (levels by U.S. Bureau of Public Roads).

REMARKS.--Water-discharge records good. Occasional diurnal fluctuation caused by powerplants upstream; slight regulation by Fish Lake and Emigrant Lake. Many diversions for irrigation and mining.

AVERAGE DISCHARGE.--17 years, 6,326 ft^3/s (179.2 m^3/s), 4,583,000 acre-ft/yr (5.65 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 290,000 ft^3/s (8,210 m^3/s) Dec. 23, 1964, from slope-area measurement; maximum gage height, 68.03 ft (20.736 m) Dec. 23, 1964, from floodmark (backwater from Illinois River); minimum discharge, 608 ft^3/s (17.2 m^3/s) July 9, 10, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,450 ft^3/s (211 m^3/s) Sept. 29, gage height, 5.89 ft (1.795 m), no peak above base of 35,000 ft^3/s (991 m^3/s); minimum, 745 ft^3/s (21.1 m^3/s) Aug. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2000	1740	1560	1530	1470	2980	1940	1430	1800	902	861	990
2	1900	1760	1570	1610	1480	2760	1860	1570	1600	1050	861	990
3	1800	1760	1560	1880	1450	2760	1960	2170	1400	1120	821	990
4	1700	1670	1540	1900	1410	2610	1930	2230	1300	1110	773	967
5	1620	1650	1540	1800	1410	2310	1890	2390	1200	1100	773	979
6	1590	1620	1530	1700	1400	2070	1880	2340	1200	1070	831	979
7	1590	1620	1530	1600	1410	3060	1940	2320	1200	1050	831	967
8	1580	1610	1560	1500	1430	4140	1940	2170	1200	1010	861	979
9	1550	1610	1670	1500	1410	4900	1920	2000	1300	956	923	956
10	1520	1610	1700	1600	1400	4980	1870	1930	1400	934	871	979
11	1520	1600	1600	1700	1420	3920	1720	1940	1600	956	831	1020
12	1520	1590	1580	1900	1410	3600	1560	2210	1700	923	802	1080
13	1500	1610	1580	1930	1400	3310	1500	2150	1600	871	802	1100
14	1500	1710	1570	1810	1400	3020	1450	1920	1500	861	811	1090
15	1450	1780	1550	1720	1390	2640	1440	1750	1460	881	841	1080
16	1500	1880	1540	1670	1380	2400	1310	1840	1390	892	841	1090
17	1480	1890	1550	1620	1370	2210	1330	1990	1300	1010	820	1180
18	1530	1770	1550	1580	1330	2110	1330	2290	1230	1090	802	1310
19	1520	1700	1530	1570	1300	2110	1190	2210	1250	1100	802	1590
20	1520	1660	1500	1580	903	2130	1000	2030	1290	934	821	1560
21	1510	1630	1490	1590	1110	2150	1030	1830	1270	861	861	1430
22	1520	1620	1490	1580	1770	2190	1060	1710	1190	841	913	1400
23	1510	1610	1510	1570	1940	2310	1080	1850	1130	821	892	1390
24	1540	1610	1520	1550	2330	2520	1150	2970	1070	851	979	1440
25	1640	1610	1520	1530	2040	2600	1200	2980	1060	861	1000	1410
26	1660	1590	1530	1500	1880	2500	1260	2550	1070	851	1120	1420
27	1730	1580	1580	1480	1890	2400	1250	2660	1110	811	1120	1440
28	1660	1580	1590	1450	2860	2380	1060	2840	1090	811	1120	2280
29	1620	1550	1580	1460	---	2420	1080	2380	967	802	1110	5560
30	1620	1550	1540	1450	---	2210	1240	2200	913	811	1090	4500
31	1650	---	1530	1450	---	2070	---	2000	---	831	1020	---
TOTAL	49550	49770	48190	50310	43393	85770	44370	66850	38790	28972	27804	44146
MEAN	1598	1659	1555	1623	1550	2767	1479	2156	1293	935	897	1472
MAX	2000	1890	1700	1930	2860	4980	1960	2980	1800	1120	1120	5560
MIN	1450	1550	1490	1450	903	2070	1000	1430	913	802	773	956
AC-FT	98280	98720	95580	99790	86070	170100	88010	132600	76940	57470	55150	87560

CAL YR 1976 TOTAL 1451130 MEAN 3965 MAX 27300 MIN 1370 AC-FT 2878000
WTR YR 1977 TOTAL 577915 MEAN 1583 MAX 5560 MIN 773 AC-FT 1146000

14372300 ROGUE RIVER NEAR AGNESS, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1960 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26.5°C on several days in 1962, Aug. 3, 6, 9-11, 1977; minimum, 1.0°C Jan. 22-25, 1962, Dec. 9-16, 1972, Jan. 9, 10, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 26.5°C Aug. 3, 6, 9-11; minimum, 1.0°C Jan. 9, 10.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	DISSOLVED OXYGEN (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
OCT												
20...	0900	1510	11.0	7.2	10.3	102	B2	B14	26	9.7	3.7	5.9
NOV												
17...	0830	1910	10.5	7.1	9.8	118	20	B10	24	11	4.1	6.0
DEC												
15...	0930	1550	4.0	7.2	12.5	108	B3	B3	27	9.7	3.8	6.1
JAN												
11...	1000	1610	2.0	7.5	12.6	114	B2	B20	26	9.8	4.2	6.0
FEB												
24...	1000	2440	7.0	7.5	11.9	111	100	44	20	11	5.2	5.9
MAR												
16...	0800	2470	8.0	7.4	11.3	116	B3	B8	19	10	4.4	5.3
APR												
20...	0830	1200	13.0	7.4	9.9	113	<1	23	18	11	4.6	5.5
MAY												
17...	1700	2080	15.0	7.8	--	117	B2	B2	18	12	4.7	5.3
JUN												
22...	0900	1310	21.0	7.7	8.5	104	B2	140	18	10	4.0	5.6
JUL												
27...	1100	760	23.0	7.3	8.5	92	B5	1500	20	8.4	3.5	5.7
AUG												
24...	1015	1010	22.0	6.9	8.8	98	120	3000	24	9.0	4.1	5.0
SEP												
22...	0900	1400	15.5	7.4	9.1	114	B12	660	26	11	4.1	5.9

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT											
20...	48	0	5.8	2.5	.1	.11	.40	.51	.06	39	0
NOV											
17...	61	0	6.9	3.1	.1	.13	.15	.28	.10	44	0
DEC											
15...	49	0	4.2	3.4	.1	.11	.48	.59	.08	40	0
JAN											
11...	62	--	4.2	3.6	.2	.15	.13	.28	.10	42	0
FEB											
24...	60	0	3.0	5.2	.1	.20	.22	.42	.13	49	0
MAR											
16...	59	0	5.9	3.8	.1	.10	.18	.28	.10	45	0
APR											
20...	59	0	5.7	3.5	.1	.03	.24	.27	.09	46	0
MAY											
17...	61	0	6.7	3.3	.0	.05	.38	.43	.10	49	0
JUN											
22...	54	0	3.8	2.9	.0	.04	.20	.24	.05	41	0
JUL											
27...	48	0	7.5	2.9	.1	.03	.30	.33	.13	35	0
AUG											
24...	54	0	2.5	3.3	.1	.03	.04	.07	.14	39	0
SEP											
22...	59	0	2.6	3.5	.1	.12	.02	.14	.10	44	0

B# RESULTS BASED ON NON-IDEAL COLONY COUNT

14372300 ROGUE RIVER NEAR AGNESS, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	SODIUM AD-SORP-TION RATIO	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TUR-BID-ITY (JTU)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	ALKA-LINITY AS CACO3 (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT 20...	.4	92	79	375	.13	2	3	12	75	39	1.4
NOV 17...	.4	78	87	402	.11	2	9	46	53	50	--
DEC 15...	.4	97	80	406	.13	3	--	--	--	40	--
JAN 11...	.4	86	86	374	.12	3	2	8.7	84	51	676
FEB 24...	.4	79	81	520	.11	11	18	119	82	49	--
MAR 16...	.3	76	79	507	.10	7	6	40	78	48	--
APR 20...	.4	93	79	301	.13	2	4	13	76	48	1.5
MAY 17...	.3	81	81	455	.11	3	10	56	54	50	--
JUN 22...	.4	72	72	255	.10	3	6	21	45	44	--
JUL 27...	.4	64	73	131	.09	5	11	23	48	39	2.7
AUG 24...	.3	74	76	202	.10	4	12	33	75	44	--
SEP 22...	.4	78	84	295	.11	5	10	38	61	48	--

DATE	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)
OCT 20...	230	20	20	0	1	1	<10	2	0	0	<50
JAN 11...	140	60	10	0	1	0	<10	1	0	0	<50
APR 20...	210	50	20	20	1	1	<10	2	0	0	<50
JUL 27...	370	80	30	0	1	0	<10	2	5	0	<50

DATE	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)
OCT 20...	0	10	10	<100	15	30	30	0	0	.0	.0
JAN 11...	0	<10	2	<100	0	30	10	0	0	.0	.0
APR 20...	0	10	2	<100	18	20	10	1	1	.0	.0
JUL 27...	1	20	3	<100	22	20	4	0	0	.6	.0

DATE	LENGTH OF EXPO-SURE (DAYS)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	CHLOR-A PERI-PHYTON CHROMO-SPECT-METRIC (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-SPECT-METRIC (MG/M2)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)
JAN 11...	27	52.0	5.93	.450	--	--
SEP 22...	15	.00	--	--	.048	.020

14372300 ROGUE RIVER NEAR AGNESS, OR--Continued

PESTICIDE ANALYSES

DATE	TOTAL ALDRIN (UG/L)	TOTAL LINDANE (UG/L)	TOTAL CHLOR-DANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DI-ELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL ETHION (UG/L)	TOTAL TOX-APHENE (UG/L)	TOTAL HEPTA-CHLOR (UG/L)	TOTAL HEPTA-CHLOR EPOXIDE (UG/L)
NOV , 1976												
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB , 1977												
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY												
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG												
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	TOTAL METH-OXY-CHLOR (UG/L)	TOTAL MALA-THION (UG/L)	TOTAL PARA-THION (UG/L)	TOTAL DI-AZINON (UG/L)	TOTAL METHYL PARA-THION (UG/L)	TOTAL ATRA-ZINE (UG/L)	SIMA-ZINE TOTAL COUL-SON COND. (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)	TOTAL TRI-THION (UG/L)	TOTAL METHYL TRI-THION (UG/L)
NOV , 1976												
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB , 1977												
24...	ND	ND	ND	ND	ND	ND	.58	ND	ND	ND	ND	ND
MAY												
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG												
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND: SPECIFICALLY LOOKED FOR BUT NOT DETECTED

14372300 ROGUE RIVER NEAR AGNESS, OR—Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 20,76	NOV 17,76	DEC 15,76	JAN 11,77	FEB 24,77	MAR 16,77
TIME	0900	0830	0930	1000	1000	0800
TOTAL CELLS/ML	1400	780	2000	730	5600	1600
DIVERSITY: DIVISION	0.0	1.3	0.2	0.0	0.6	0.1
.CLASS	0.0	1.3	0.2	0.0	0.6	0.1
..ORDER	0.3	1.7	0.2	0.2	0.6	0.1
...FAMILY	2.5	2.5	2.5	2.1	2.9	2.5
....GENUS	2.7	2.8	2.7	2.4	3.2	3.2

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHARACIACEAE												
....SCHROEDERIA	--	-	--	-	--	-	--	-	--	-	--	-
...COELASTRACEAE												
....COELASTRUM	--	-	--	-	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE												
....PEDIASTRUM	--	-	--	-	--	-	--	-	--	-	--	-
...MICRACTINIACEAE												
....GOLENKINIA	--	-	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	--	-	15	1	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	*	0	--	-	--	-	--	-	--	-
...SCENEDESMACEAE												
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	57	7	30	2	*	0	140	3	--	-
..TETRASPORALES												
...COCCOMYXACEAE												
....ELAKATOTHRIX	--	-	--	-	--	-	--	-	--	-	17	1
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	--	-	--	-
...VOLVOCACEAE												
....EUDORINA	--	-	--	-	--	-	--	-	--	-	--	-
..ZYGNEMATALES												
...DESMIDIACEAE												
....COSMARIUM	--	-	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	88	6	--	-	15	1	6	1	--	-	--	-
....MELOSIRA	--	-	--	-	--	-	11	2	--	-	--	-
....STEPHANODISCUS	--	-	--	-	--	-	--	-	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	88	6	--	-	150	8	55	8	250	4	170	10
....COCCONEIS	*	0	25	3	30	2	11	2	110	2	17	1
....RHOICOSPHENIA	88	6	81	10	130	7	22	3	1000#	18	290#	17
...CYMBELLACEAE												
....AMPHORA	--	-	--	-	15	1	--	-	--	-	--	-
....CYMBELLA	88	6	79	10	75	4	6	1	320	6	290#	17
....EPITHEMIA	--	-	12	2	--	-	--	-	--	-	--	-
...DIATOMACEAE												
....DIATOMA	44	3	*	0	60	3	55	8	210	4	17	1
...FRAGILARIACEAE												
....ASTERIONELLA	--	-	--	-	--	-	--	-	--	-	67	4
....FRAGILARIA	--	-	44	6	220	11	22	3	1100#	20	100	6
....HANNAEA	--	-	--	-	--	-	--	-	--	-	17	1
....SYNEDRA	88	6	5	1	--	-	22	3	36	1	50	3
...GOMPHONEMATACEAE												
....GOMPHONEIS	--	-	--	-	--	-	--	-	--	-	17	1
....GOMPHONEMA	88	6	32	4	90	5	50	7	390	7	50	3
...NAVICULACEAE												
....NAVICULA	310#	22	10	1	240	12	72	10	390	7	100	6
....PINNULARIA	--	-	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE												
....NITZSCHIA	530#	38	*	0	880#	45	400#	55	1200#	21	420#	26
...SURIRELLACEAE												
....CYMATOPLEURA	--	-	--	-	--	-	*	0	--	-	--	-
....SURIRELLA	--	-	--	-	15	1	--	-	--	-	34	2
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROCOCCALES												
...CHROCOCCACEAE												
....ANACYSTIS	--	-	320#	41	--	-	*	0	--	-	--	-
..HORMOGONALES												
...NOSTOCACEAE												
....ANABAENA	--	-	--	-	--	-	--	-	180	3	--	-
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	110	14	--	-	--	-	280	5	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....TRACHELOMONAS	--	-	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

14372300 ROGUE RIVER NEAR AGNESS, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	MAY 17,77		JUN 22,77		JUL 27,77		AUG 24,77		SEP 22,77	
TIME	1700		0900		1100		1015		0900	
TOTAL CELLS/ML	4600		3900		4800		1900		920	
DIVERSITY: DIVISION	1.4		0.9		0.7		1.3		0.7	
.CLASS	1.4		0.9		0.7		1.3		0.7	
..ORDER	1.9		1.4		1.6		1.5		0.9	
...FAMILY	2.6		2.6		3.2		2.3		3.0	
....GENUS	2.8		2.7		3.5		2.5		3.3	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	18	1	--	-
...COELASTRACEAE										
....COELASTRUM	140	3	200	5	410	9	140	7	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	400	10	--	-	36	2	110	12
...MICRACTINIACEAE										
....GOLENKINIA	*	0	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	*	0	*	0	120	3	--	-	7	1
....DICTYOSPHAERIUM	--	-	--	-	--	-	45	2	--	-
....KIRCHNERIELLA	--	-	*	0	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....CRUCIGENIA	*	0	--	-	--	-	--	-	--	-
....SCENEDESMUS	210	5	520	13	280	6	36	2	53	6
..TETRASPORALES										
...COCCOMYXACEAE										
....ELAKATOTHRIX	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	*	0	--	-	--	-	--	-	--	-
...VOLVOCACEAE										
....EUDORINA	280	6	--	-	--	-	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....COSMARIUM	--	-	--	-	160	3	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	210	5	560	14	850#	18	31	2	33	4
....MELOSIRA	26	1	38	1	330	7	31	2	--	-
....STEPHANODISCUS	--	-	--	-	--	-	13	1	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	*	0	--	-	120	3	54	3	110	12
....COCCONEIS	35	1	38	1	120	3	27	1	140#	15
....RHOICOSPHENIA	260	6	38	1	200	4	--	-	--	-
...CYMBELLACEAE										
....AMPHORA	--	-	--	-	--	-	31	2	--	-
....CYMBELLA	88	2	--	-	--	-	--	-	46	5
....EPITHEMIA	*	0	--	-	--	-	31	2	27	3
...DIATOMACEAE										
....DIATOMA	79	2	38	1	240	5	*	0	33	4
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	--	-	13	1	--	-
....FRAGILARIA	240	5	1600#	41	--	-	--	-	--	-
....HANNAEA	--	-	--	-	--	-	--	-	--	-
....SYNEDRA	79	2	25	1	280	6	49	3	13	1
...GOMPHONEMATACEAE										
....GOMPHONEIS	--	-	--	-	--	-	--	-	--	-
....GOMPHONEMA	88	2	51	1	410	9	49	3	110	12
...NAVICULACEAE										
....NAVICULA	190	4	100	3	330	7	36	2	73	8
....PINNULARIA	--	-	25	1	--	-	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	61	1	240	6	890#	19	120	6	170#	18
...SURIRELLACEAE										
....CYMATOPLEURA	--	-	--	-	--	-	--	-	--	-
....SURIRELLA	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROCOCCALES										
...CHROCOCCACEAE										
....ANACYSTIS	97	2	--	-	--	-	1200#	60	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....OSCILLATORIA	2500#	53	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....TRACHELOMONAS	--	-	--	-	--	-	--	-	*	0

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

14372300 ROGUE RIVER NEAR AGNESS, OR—Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.0	18.0	11.5	10.5	4.0	3.0	4.5	4.5	5.0	3.5	8.5	7.5
2	19.0	17.5	12.5	11.0	4.0	3.0	4.5	4.0	5.0	4.0	8.0	7.5
3	18.0	16.5	13.0	11.5	4.0	3.5	4.5	4.0	5.0	4.0	8.0	7.5
4	17.0	15.5	13.5	12.5	4.5	3.5	4.5	4.0	5.5	4.0	8.5	7.5
5	16.5	14.5	13.0	12.0	4.0	3.5	4.5	4.0	5.0	4.5	9.0	7.5
6	16.0	14.0	12.5	11.5	4.0	3.5	4.0	3.5	6.0	5.0	8.5	8.0
7	16.5	14.5	12.0	11.0	4.5	3.5	3.5	2.5	6.0	5.5	8.5	8.0
8	16.5	14.5	11.5	10.5	4.5	4.0	2.5	1.5	7.0	5.5	9.0	8.0
9	16.5	15.0	10.5	10.0	5.0	4.0	2.0	1.0	7.5	6.5	8.5	8.0
10	17.0	15.0	10.5	10.0	4.5	4.0	2.0	1.0	8.0	6.5	8.5	7.5
11	17.0	15.0	10.0	10.0	4.5	4.0	2.5	1.5	8.5	7.5	8.5	7.5
12	16.5	14.5	10.5	9.5	5.0	4.0	3.5	2.5	9.0	7.5	8.5	7.5
13	16.0	14.0	10.5	10.0	5.0	4.5	4.5	3.5	9.5	8.5	9.0	7.5
14	15.5	13.5	10.5	10.0	4.5	4.0	5.5	4.5	9.5	8.5	8.5	7.5
15	15.0	13.0	10.5	10.0	4.5	4.0	5.5	5.0	9.5	8.5	8.5	7.5
16	14.0	12.5	11.0	10.0	4.5	4.0	5.5	4.5	9.5	8.5	9.5	7.5
17	13.5	12.0	11.0	10.0	4.5	4.0	5.0	4.5	9.5	8.5	8.5	7.5
18	13.0	11.5	12.0	11.0	4.5	4.0	5.0	4.5	9.5	8.5	9.0	7.5
19	13.0	11.0	11.0	10.5	4.0	3.5	4.5	4.0	9.5	8.5	10.0	8.5
20	12.5	11.0	11.0	10.5	3.5	3.0	4.5	4.0	9.0	8.5	10.5	8.5
21	12.0	11.0	10.5	10.0	3.5	3.0	5.0	4.0	9.0	8.0	11.0	9.0
22	11.5	10.0	10.0	9.0	3.0	2.5	5.0	4.0	8.5	7.5	12.0	9.5
23	11.5	10.0	9.5	8.5	3.0	2.5	5.5	4.5	7.5	7.0	11.0	10.0
24	11.0	10.0	8.5	8.0	3.0	2.5	5.0	4.5	7.5	7.0	11.5	9.5
25	11.5	10.0	8.5	7.5	3.5	3.0	5.0	4.0	7.5	7.0	11.5	9.5
26	11.5	10.0	7.5	6.5	4.0	3.0	4.5	4.0	8.0	7.0	11.5	10.0
27	11.0	10.0	6.5	5.5	4.5	3.5	4.0	3.5	8.5	7.5	11.5	10.0
28	10.5	9.5	5.5	4.5	4.5	4.0	4.0	3.0	8.0	8.0	10.5	9.0
29	10.5	9.5	4.5	4.0	5.0	4.0	3.5	2.5	---	---	10.5	9.0
30	11.0	10.0	4.0	3.5	5.0	4.5	3.5	2.5	---	---	11.0	9.0
31	11.0	10.0	---	---	5.0	4.5	4.0	3.5	---	---	10.0	9.0
MONTH	19.0	9.5	13.5	3.5	5.0	2.5	5.5	1.0	9.5	3.5	12.0	7.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.5	9.0	16.0	15.5	19.5	17.0	24.5	22.0	25.5	22.5	22.5	19.5
2	11.5	9.0	17.0	15.5	20.0	17.5	24.0	21.0	26.0	23.5	22.5	20.0
3	12.5	10.0	16.0	14.5	18.5	17.5	23.5	20.5	26.5	23.0	23.5	20.5
4	13.5	11.0	15.0	14.0	19.5	17.5	23.0	20.5	26.0	22.5	23.0	21.0
5	13.5	11.5	14.0	13.0	22.0	18.5	21.5	19.0	26.0	22.5	23.5	21.5
6	14.5	12.5	15.5	12.5	23.5	19.5	21.5	18.0	26.5	22.5	23.5	21.0
7	14.5	13.0	13.5	13.0	24.0	21.0	22.5	19.0	26.0	22.5	23.0	21.0
8	14.5	13.5	16.0	12.5	23.5	21.0	22.5	19.0	26.0	22.5	22.5	20.0
9	14.0	13.0	16.0	13.5	23.5	20.5	23.0	19.5	26.5	23.0	22.0	19.5
10	13.5	12.5	15.0	14.0	21.5	20.0	23.5	19.5	26.5	23.0	22.0	19.5
11	14.5	12.0	15.5	13.5	22.0	19.0	24.5	20.5	26.5	23.0	21.5	19.0
12	14.5	12.5	15.0	13.5	22.5	19.0	24.0	21.0	25.0	22.5	22.0	19.0
13	14.5	13.5	15.5	13.5	22.5	20.0	24.0	20.5	25.0	22.0	21.5	19.0
14	14.5	12.5	16.5	14.0	23.0	20.5	24.5	21.0	24.5	22.0	20.5	19.0
15	15.0	13.0	15.5	14.0	23.5	21.0	25.0	21.5	25.0	22.0	19.5	18.5
16	15.0	13.5	15.0	14.0	23.5	21.0	25.5	22.0	26.0	22.0	18.5	18.0
17	15.5	13.0	15.0	13.5	22.5	21.0	25.5	22.5	24.5	22.5	18.0	17.0
18	15.5	13.0	15.5	14.0	23.0	20.5	24.0	22.5	24.0	22.0	17.0	16.5
19	15.5	13.0	17.0	13.5	23.0	20.5	24.5	22.0	25.0	22.0	17.5	16.0
20	15.0	12.5	17.0	14.0	22.0	20.5	25.0	21.5	23.5	22.0	17.5	16.0
21	15.0	12.5	18.0	15.5	23.5	20.0	25.5	21.5	24.0	21.5	17.0	16.0
22	15.5	12.5	16.5	16.0	24.0	21.0	25.5	22.0	24.5	21.0	17.5	16.0
23	17.0	13.0	16.0	15.0	24.0	21.0	26.0	22.5	24.0	21.0	16.5	16.5
24	17.0	14.0	17.0	14.5	25.0	21.5	25.5	22.5	23.0	21.5	17.5	16.0
25	15.0	14.5	15.5	14.5	25.0	21.5	25.5	22.5	21.5	20.5	16.5	16.0
26	17.5	14.0	16.5	14.5	25.5	22.0	25.5	22.5	21.5	20.0	17.5	16.0
27	17.5	14.5	15.5	14.5	25.0	22.0	25.0	22.0	21.0	19.5	17.0	16.5
28	16.0	14.5	16.5	14.0	25.5	22.0	25.0	22.0	20.5	19.0	16.5	15.5
29	17.0	14.5	17.5	15.0	25.0	22.0	25.0	21.5	22.5	19.5	16.0	14.5
30	17.0	15.0	18.5	15.5	24.0	21.5	25.5	22.0	22.5	20.0	15.5	14.5
31	---	---	19.5	16.5	---	---	25.5	22.5	22.5	19.5	---	---
MONTH	17.5	9.0	19.5	12.5	25.5	17.0	26.0	18.0	26.5	19.0	23.5	14.5

14372500 EAST FORK ILLINOIS RIVER NEAR TAKILMA, OR

LOCATION.--Lat 42°00'10", long 123°37'30", in SE¼NE¼ sec.15, T.41 S., R.8 W., Josephine County, Hydrologic Unit 17100311, Siskiyou National Forest, on right bank 0.3 mi (0.5 km) downstream from Dunn Creek (California-Oregon State line), 3.4 mi (5.5 km) south of Takilma, and at mile 71.2 (114.6 km).

DRAINAGE AREA.--42.3 mi^2 (109.6 km^2).

PERIOD OF RECORD.--April to September 1926, April 1927 to April 1932, October 1940 to current year. Monthly discharge only for some periods, published in WSP 1318. Records prior to 1942 water year not equivalent owing to large diversions.

REVISED RECORDS.--WSP 1184: 1948. WSP 1288: 1951(P). WSP 1398: 1946, 1947(M), 1949. WSP 1738: Drainage area (former site).

GAGE.--Water-stage recorder. Altitude of gage is 1,780 ft (543 m), from topographic map. Prior to Oct. 31, 1946, nonrecording gage at sites 0.6 mi (1.0 km) downstream at different datums. Oct. 31, 1946, to May 13, 1949, nonrecording gage and May 14, 1949, to Aug. 23, 1965, water-stage recorder at site 0.6 mi (1.0 km) downstream at datum 1,746.6 ft (532.36 m) above mean sea level.

REMARKS.--Records fair. No regulation. Two small diversions for irrigation above station.

AVERAGE DISCHARGE.--36 years (water years 1942-77), 180 ft^3/s (5.098 m^3/s), 57.79 in/yr (1,468 mm/yr), 130,400 acre-ft/yr (161 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft^3/s (445 m^3/s) Dec. 22, 1964, gage height, 14.90 ft (4.542 m), present site and datum, from floodmark, from rating curve extended above 4,400 ft^3/s (125 m^3/s) on basis of slope-area measurement of peak flow; minimum, 4.6 ft^3/s (0.13 m^3/s) Nov. 3, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 587 ft^3/s (16.6 m^3/s) Sept. 28, gage height, 4.16 ft (1.268 m), no peak above base of 2,500 ft^3/s (70.8 m^3/s); minimum, 5.4 ft^3/s (0.15 m^3/s) Sept. 13-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	13	11	13	15	137	65	100	73	20	8.7	6.8
2	10	12	11	38	15	96	65	103	66	19	11	6.6
3	11	11	11	35	14	77	70	153	59	18	8.7	6.4
4	11	10	11	25	13	67	90	147	58	17	8.2	6.4
5	11	9.6	11	20	14	65	120	135	58	17	7.8	6.6
6	10	9.3	11	17	15	73	125	121	56	16	7.6	6.4
7	10	8.9	11	16	15	131	135	112	53	16	12	6.2
8	9.6	8.9	13	15	25	251	150	104	48	15	12	6.0
9	9.4	8.5	16	14	25	315	125	106	44	15	10	6.0
10	9.0	10	12	18	22	191	100	109	41	14	9.0	6.0
11	8.6	11	12	30	20	137	90	106	39	13	8.2	5.8
12	8.4	11	12	38	20	159	90	100	37	13	7.8	5.7
13	8.0	12	11	27	20	137	110	93	35	13	7.4	5.7
14	7.8	33	11	25	20	104	100	92	33	13	7.2	5.4
15	7.8	36	12	22	19	84	95	86	31	13	7.2	5.7
16	7.8	26	12	21	19	71	100	80	30	13	7.0	6.5
17	8.0	20	12	20	18	65	95	74	29	12	6.2	8.3
18	8.2	18	12	20	17	61	85	72	28	12	6.2	15
19	8.2	16	12	23	16	61	80	71	27	11	6.4	33
20	8.2	15	12	25	28	65	75	72	26	11	6.0	30
21	8.0	14	12	25	70	75	75	77	26	11	5.8	17
22	7.8	13	12	24	92	85	80	81	25	11	5.8	12
23	7.9	13	12	22	81	100	80	80	24	10	5.8	12
24	10	12	11	20	77	90	85	71	23	10	6.2	31
25	18	12	12	19	62	80	90	67	22	11	8.0	20
26	13	12	14	18	53	75	80	117	21	10	8.6	15
27	10	12	15	17	67	80	72	110	20	9.0	8.0	15
28	9.3	12	13	16	172	80	72	93	19	8.7	7.4	372
29	9.6	12	13	16	---	75	71	83	19	8.7	7.4	214
30	10	12	13	15	---	70	86	76	18	8.7	7.2	93
31	11	---	12	15	---	60	---	73	---	8.3	7.0	---
TOTAL	296.6	423.2	375	669	1044	3217	2756	2964	1088	397.4	241.8	985.5
MEAN	9.57	14.1	12.1	21.6	37.3	104	91.9	95.6	36.3	12.8	7.80	32.9
MAX	18	36	16	38	172	315	150	153	73	20	12	372
MIN	7.8	8.5	11	13	13	60	65	67	18	8.3	5.8	5.4
CFSM	.23	.33	.29	.51	.88	2.46	2.17	2.26	.86	.30	.18	.78
IN.	.26	.37	.33	.59	.92	2.83	2.42	2.61	.96	.35	.21	.87
AC-FT	588	839	744	1330	2070	6380	5470	5880	2160	788	480	1950

CAL YR 1976 TOTAL 32234.3 MEAN 88.1 MAX 1270 MIN 7.8 CFSM 2.08 IN 28.35 AC-FT 63940
WTR YR 1977 TOTAL 14457.5 MEAN 39.6 MAX 372 MIN 5.4 CFSM .94 IN 12.71 AC-FT 28680

NOTE.--No gage-height record Mar. 20 to Apr. 26.

14375100 SUCKER CREEK BELOW LITTLE GRAYBACK CREEK, NEAR HOLLAND, OR

LOCATION.--Lat 42°09'35", long 123°28'40", in NE¼SW¼ sec.24, T.39 S., R.7 W., Josephine County, Hydrologic Unit 17100311, on right bank 500 ft (152 m) downstream from Little Grayback Creek, 2.0 mi (3.2 km) downstream from Grayback Creek, 3.7 mi (6.0 km) northeast of Holland, and at mile 9.3 (15.0 km).

DRAINAGE AREA.--83.9 mi^2 (217.3 km^2).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,700 ft (518 m), from topographic map.

REMARKS.--Records good. Grayback Canal and 3 small diversions from Grayback and Cave Creeks divert water for domestic use and irrigation above station. Return flow from these diversions enters creek above station.

AVERAGE DISCHARGE.--12 years, 241 ft^3/s (6.825 m^3/s), 39.01 in/yr (991 mm/yr), 174,600 acre-ft/yr (215 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,550 ft^3/s (242 m^3/s) Jan. 15, 1974, gage height, 8.20 ft (2.499 m); minimum, 12 ft^3/s (0.34 m^3/s) Oct. 20, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1940, 10.8 ft (3.292 m) on Dec. 22, 1964, from floodmark, discharge, 19,300 ft^3/s (547 m^3/s), from estimate based on slope-area measurement of peak flow at site 0.7 mi (1.1 km) upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 522 ft^3/s (14.8 m^3/s) Sept. 28, gage height, 2.85 ft (0.869 m), no peak above base of 850 ft^3/s (24.1 m^3/s); minimum, 14 ft^3/s (0.40 m^3/s) Sept. 12-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	44	31	31	26	103	74	115	119	48	20	17
2	33	38	30	62	25	84	76	115	106	41	20	16
3	35	36	30	54	24	87	76	149	101	38	19	16
4	32	33	30	46	24	79	98	128	101	38	19	16
5	31	32	30	41	24	76	125	119	101	36	18	17
6	31	32	30	35	25	79	135	115	98	36	18	16
7	30	31	30	35	24	98	145	122	95	35	20	16
8	30	31	38	32	35	145	160	119	87	33	21	15
9	29	31	43	33	33	191	132	122	81	32	19	15
10	29	32	33	33	29	128	109	132	79	32	18	15
11	29	33	33	39	30	101	101	128	76	31	17	15
12	29	33	32	48	30	106	101	125	71	31	17	15
13	27	35	31	41	29	95	112	119	69	30	17	15
14	27	71	30	39	27	84	106	115	69	29	17	15
15	27	60	30	35	27	76	101	109	62	29	16	15
16	27	48	30	33	29	71	109	109	60	27	16	18
17	27	41	30	33	27	71	101	106	60	26	16	21
18	27	38	29	36	27	67	89	103	58	26	16	27
19	27	36	30	36	26	69	84	101	56	27	16	54
20	27	35	29	36	38	79	84	101	56	26	16	35
21	27	35	30	36	74	81	81	103	54	25	17	24
22	27	33	29	35	76	95	87	122	52	25	16	21
23	29	33	29	32	71	109	87	142	48	24	16	23
24	33	32	29	30	69	101	89	122	46	23	20	46
25	48	32	27	30	62	92	98	115	44	23	23	26
26	38	32	35	29	64	87	89	164	43	23	23	23
27	35	32	38	27	87	95	84	142	41	22	21	25
28	32	32	31	27	132	89	87	128	39	22	20	319
29	33	32	32	25	---	84	92	122	38	22	20	164
30	38	32	31	25	---	79	103	115	38	21	18	58
31	39	---	30	27	---	74	---	119	---	20	18	---
TOTAL	964	1095	970	1101	1194	2875	3015	3746	2048	901	568	1118
MEAN	31.1	36.5	31.3	35.5	42.6	92.7	101	121	68.3	29.1	18.3	37.3
MAX	48	71	43	62	132	191	160	164	119	48	23	319
MIN	27	31	27	25	24	67	74	101	38	20	16	15
CFSM	.37	.44	.37	.42	.51	1.11	1.20	1.44	.81	.35	.22	.45
IN.	.43	.49	.43	.49	.53	1.27	1.34	1.66	.91	.40	.25	.50
AC-FT	1910	2170	1920	2180	2370	5700	5980	7430	4060	1790	1130	2220

CAL YR 1976 TOTAL 46519 MEAN 127 MAX 650 MIN 27 CFSM 1.51 IN 20.63 AC-FT 92270
WTR YR 1977 TOTAL 19595 MEAN 53.7 MAX 319 MIN 15 CFSM .64 IN 8.69 AC-FT 38870

14375500 WEST FORK ILLINOIS RIVER BELOW ROCK CREEK, NEAR O'BRIEN, OR

LOCATION.--Lat 42°02'20", long 123°44'50", in SW¼SE¼ sec.34, T.40 S., R.9 W., Josephine County, Hydrologic Unit 17100311, Siskiyou National Forest, on left bank 0.2 mi (0.3 km) downstream from Rock Creek, 3.0 mi (4.8 km) southwest of O'Brien, and at mile 12.8 (20.6 km).

DRAINAGE AREA.--42.4 mi^3 (109.8 km^2).

PERIOD OF RECORD.--September 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,516.14 ft (462.119 m) above mean sea level.

REMARKS.--Records good. Occasional diurnal fluctuation caused by logpond upstream. Three small diversions from Elk Creek for irrigation above station.

AVERAGE DISCHARGE.--23 years, 215 ft^3/s (6.089 m^3/s), 68.86 in/yr (1,749 mm/yr), 155,800 acre-ft/yr (192 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,100 ft^3/s (456 m^3/s) Dec. 22, 1964, gage height, 16.05 ft (4.892 m), from rating curve extended above 6,200 ft^3/s (176 m^3/s), on basis of slope-area measurement at gage height 14.79 ft (4.508 m); minimum, 1.5 ft^3/s (0.042 m^3/s) Sept. 2-4, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,220 ft^3/s (34.6 m^3/s) Mar. 9, gage height, 6.35 ft (1.935 m), no peak above base of 2,500 ft^3/s (70.8 m^3/s); minimum, 2.2 ft^3/s (0.062 m^3/s) Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	19	12	16	17	377	80	35	32	11	3.5	4.5
2	6.8	15	12	112	17	237	77	45	31	10	3.5	3.9
3	7.6	14	11	131	17	210	73	151	28	11	3.0	3.9
4	7.3	12	11	89	16	167	75	172	28	11	3.0	4.1
5	7.0	11	11	60	16	142	80	206	26	11	2.8	4.1
6	7.0	11	11	47	16	141	76	166	25	10	2.8	4.1
7	7.0	10	11	39	16	462	70	135	24	8.2	3.0	3.7
8	6.0	10	12	34	17	778	71	117	23	8.2	3.0	3.1
9	6.0	11	16	31	16	949	64	97	23	8.2	3.0	2.8
10	6.0	17	10	38	15	470	58	86	22	8.2	2.8	2.6
11	6.0	13	9.7	74	15	285	53	83	22	7.9	2.8	2.5
12	6.0	13	9.7	151	15	347	48	76	21	7.6	2.8	2.3
13	6.0	14	11	98	15	296	46	67	20	7.3	2.8	2.6
14	6.2	38	12	75	14	215	43	61	19	7.0	3.0	2.6
15	6.5	49	12	62	14	166	41	56	18	6.5	2.8	3.3
16	5.2	32	11	53	13	137	39	53	17	6.5	2.6	3.9
17	5.2	25	11	46	14	118	37	50	17	6.2	2.6	6.8
18	6.0	21	10	40	14	105	35	47	17	6.0	2.8	13
19	6.8	20	9.7	37	13	104	34	45	16	6.0	3.0	28
20	5.7	17	9.1	34	21	108	33	42	16	5.7	3.0	23
21	6.5	16	9.7	31	106	105	31	40	16	5.5	3.1	14
22	5.5	15	9.7	29	279	107	31	39	15	5.5	3.0	10
23	6.0	15	10	27	241	119	29	39	14	5.2	3.0	10
24	10	15	10	26	226	145	28	37	13	5.0	5.0	19
25	18	14	11	24	178	152	31	35	9.1	5.0	6.0	15
26	13	12	13	23	170	141	31	42	9.4	5.2	6.2	10
27	10	12	17	21	232	142	28	42	9.4	4.3	5.5	13
28	9.1	13	14	18	651	132	26	38	10	4.3	5.0	528
29	9.7	13	17	17	---	113	26	36	8.8	4.3	5.2	239
30	10	13	16	17	---	98	29	34	9.1	3.7	5.5	96
31	13	---	15	18	---	86	---	33	---	3.5	5.0	---
TOTAL	237.6	510	364.6	1518	2394	7154	1423	2205	558.8	215.0	111.1	1078.8
MEAN	7.66	17.0	11.8	49.0	85.5	231	47.4	71.1	18.6	6.94	3.58	36.0
MAX	18	49	17	151	651	949	80	206	32	11	6.2	528
MIN	5.2	10	9.1	16	13	86	26	33	8.8	3.5	2.6	2.3
CFSM	.18	.40	.28	1.16	2.02	5.45	1.12	1.68	.44	.16	.08	.85
IN.	.21	.45	.32	1.33	2.10	6.28	1.25	1.93	.49	.19	.10	.95
AC-FT	471	1010	723	3010	4750	14190	2820	4370	1110	426	220	2140

CAL YR 1976 TOTAL 36866.4 MEAN 101 MAX 1820 MIN 4.7 CFSM 2.38 IN 32.34 AC-FT 73120
WTR YR 1977 TOTAL 17769.9 MEAN 48.7 MAX 949 MIN 2.3 CFSM 1.15 IN 15.59 AC-FT 35250

14377100 ILLINOIS RIVER NEAR KERBY, OR

LOCATION.--Lat 42°13'55", long 123°39'45", in SE¼SE¼ sec.29, T.38 S., R.8 W., Josephine County, Hydrologic Unit 17100311, Siskiyou National Forest, on right bank 1.6 mi (2.6 km) upstream from Josephine Creek, 2.5 mi (4.0 km) northwest of Kerby, and at mile 50.3 (80.9 km).

DRAINAGE AREA.--380 mi^2 (984 km^2).

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,198.08 ft (365.175 m) above mean sea level. Prior to Jan. 28, 1965, water-stage recorder, and Jan. 28 to Sept. 30, 1965, nonrecording gage 700 ft (213 m) downstream at datum 2.99 ft (0.911 m) lower.

REMARKS.--Records good. No regulation. Diversions for irrigation above station. Some diversions for mining and logpond operation.

AVERAGE DISCHARGE.--16 years, 1,290 ft^3/s (36.53 m^3/s), 46.10 in/yr (1,171 mm/yr), 934,600 acre-ft/yr (1.15 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 92,200 ft^3/s (2,610 m^3/s) Dec. 22, 1964, gage height, 45.28 ft (13.801 m), from floodmark, site and datum then in use, from rating curve extended above 30,000 ft^3/s (850 m^3/s) on basis of slope-area measurement of peak flow; minimum, 14 ft^3/s (0.40 m^3/s) Aug. 11, 13, 14, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,470 ft^3/s (127 m^3/s) Mar. 9, gage height, 10.35 ft (3.155 m), no peak above base of 11,000 ft^3/s (312 m^3/s); minimum, 14 ft^3/s (0.40 m^3/s) Aug. 11, 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	97	113	122	133	1790	513	342	303	59	28	22
2	72	105	115	249	132	1170	505	403	294	57	30	22
3	64	102	113	455	128	981	496	597	276	58	40	23
4	72	102	112	406	127	848	525	859	260	58	29	22
5	67	99	112	313	127	759	636	848	249	59	23	25
6	67	91	112	256	125	735	689	803	232	57	19	25
7	67	88	112	220	123	1200	693	738	226	54	19	23
8	64	90	118	197	128	3180	767	669	218	53	18	23
9	62	90	128	176	135	3620	686	613	199	54	18	18
10	62	94	133	178	135	2220	575	581	193	65	18	18
11	63	99	127	216	130	1470	502	562	189	58	14	18
12	63	97	122	487	128	1550	453	547	178	46	15	18
13	63	102	120	439	125	1410	458	505	161	47	15	22
14	62	146	118	359	123	1110	453	470	153	45	17	18
15	63	224	118	306	122	905	422	444	142	43	18	18
16	62	232	118	271	118	777	414	425	135	32	18	19
17	60	197	117	245	115	693	398	411	122	32	18	23
18	59	172	113	228	113	632	369	390	112	31	18	33
19	59	157	112	218	110	603	342	382	104	32	18	49
20	58	151	110	210	117	619	315	354	96	33	18	85
21	57	144	107	199	245	623	301	347	94	31	18	84
22	57	140	102	189	924	659	285	347	91	30	18	62
23	59	137	99	180	964	749	287	388	85	26	18	53
24	64	135	102	172	1030	859	262	359	80	30	20	62
25	74	132	102	165	848	821	271	342	69	30	25	81
26	87	130	108	157	693	770	294	388	67	29	25	80
27	83	127	113	151	803	777	269	467	62	29	25	77
28	78	123	122	146	2010	767	258	417	57	28	23	1460
29	78	122	122	140	---	686	260	380	59	28	21	1790
30	80	120	122	137	---	616	287	342	55	25	21	689
31	87	---	122	137	---	556	---	320	---	25	22	---
TOTAL	2085	3845	3564	7324	10011	34155	12985	15040	4561	1284	647	4962
MEAN	67.3	128	115	236	358	1102	433	485	152	41.4	20.9	165
MAX	87	232	133	487	2010	3620	767	859	303	65	40	1790
MIN	57	88	99	122	110	556	258	320	55	25	14	18
CFSM	.18	.34	.30	.62	.94	2.90	1.14	1.28	.40	.11	.06	.43
IN.	.20	.38	.35	.72	.98	3.34	1.27	1.47	.45	.13	.06	.49
AC-FT	4140	7630	7070	14530	19860	67750	25760	29830	9050	2550	1280	9840

CAL YR 1976 TOTAL 233263 MEAN 637 MAX 9490 MIN 47 CFSM 1.68 IN 22.84 AC-FT 462700
WTR YR 1977 TOTAL 100463 MEAN 275 MAX 3620 MIN 14 CFSM .72 9.83 AC-FT 199300

14378200 ILLINOIS RIVER NEAR AGNESS, OR

LOCATION.--Lat 42°31'15", long 124°02'35", in SW¼NW¼ sec.29, T.35 S., R.11 W., Curry County, Hydrologic Unit 17100311, on right bank 0.6 mi (1.0 km) downstream from Lawson Creek, 1.4 mi (2.3 km) upstream from Fox Creek, 2.8 mi (4.5 km) southeast of Agness, and at mile 3.0 (4.8 km).

DRAINAGE AREA.--988 mi² (2,559 km²), at cable section 2.1 mi (3.4 km) downstream where all measurements are made.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 125.86 ft (38.362 m) above mean sea level.

REMARKS.--Records good. No regulation. Many diversions above station for irrigation, mining, and logpond operation. Records include flow of Fox Creek. All records given herein are for measuring site.

AVERAGE DISCHARGE.--17 years, 4,249 ft³/s (120.3 m³/s), 58.40 in/yr (1,483 mm/yr), 3,078,000 acre-ft/yr (3.80 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 225,000 ft³/s (6,370 m³/s) Dec. 22, 1964, estimated on basis of runoff ratio with station near Selma; maximum gage height, 56.91 ft (17.346 m) Dec. 22, 1964, from floodmark (backwater from Rogue River); minimum discharge, 125 ft³/s (3.54 m³/s) Sept. 14-16, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,600 ft³/s (323 m³/s) Mar. 8, gage height, 10.51 ft (3.203 m), no peak above base of 35,000 ft³/s (991 m³/s); minimum, 105 ft³/s (2.97 m³/s) Aug. 17-21, 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	210	371	260	281	343	6590	1570	870	912	291	142	150
2	206	371	256	404	334	3120	1540	956	870	290	139	147
3	203	312	253	902	325	2730	1520	1070	825	291	133	142
4	199	281	249	967	320	2340	1620	2250	821	279	130	142
5	199	264	249	769	316	2030	1940	2170	787	275	133	142
6	199	253	245	620	320	1940	2090	2180	766	272	120	139
7	196	242	245	529	316	6150	2100	1900	788	272	121	139
8	193	231	260	473	305	10100	2210	1730	660	262	119	139
9	193	238	336	430	334	10300	2090	1580	640	259	119	131
10	191	245	303	441	305	7140	1740	1500	607	255	117	131
11	188	290	285	576	305	4790	1520	1470	601	250	116	130
12	188	273	273	1300	300	4470	1410	1410	592	250	112	128
13	188	260	280	1290	312	4100	1370	1330	557	245	110	126
14	186	696	284	904	307	3370	1360	1250	526	236	110	125
15	186	673	286	820	303	2820	1290	1190	507	231	108	125
16	183	627	256	713	296	2650	1620	1220	486	224	107	125
17	183	536	253	633	290	2160	1180	1210	471	217	105	201
18	183	451	249	576	281	1960	1160	1160	450	198	105	607
19	180	398	245	548	277	1880	1040	1110	428	201	105	1060
20	180	361	238	517	420	1870	978	1060	408	195	105	1230
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

14400000 CHETCO RIVER NEAR BROOKINGS, OR

LOCATION.--Lat 42°07'25", long 124°11'10", in SE¼ sec.12, T.40 S., R.13 W., Curry County, Hydrologic Unit 17100312, on right bank 16 ft (5 m) upstream from bridge, 0.5 mi (0.8 km) upstream from Elk Creek, 6.8 mi (10.9 km) northeast of Brookings, and at mile 10.7 (17.2 km).

DRAINAGE AREA.--271 mi^2 (702 km^2).

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 50 ft (15 m), from topographic map.

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--8 years, 2,198 ft^3/s (62.25 m^3/s), 110.14 in/yr (2,798 mm/yr), 1,592,000 acre-ft/yr (1.96 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 65,800 ft^3/s (1,860 m^3/s) Jan. 16, 1971, gage height, 27.45 ft (8.367 m); minimum, 45 ft^3/s (1.27 m^3/s) Oct. 21-23, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 32.25 ft (9.830 m), from high-water mark on bridge pier, discharge, 85,400 ft^3/s (2,420 m^3/s), from rating curve extended above 45,000 ft^3/s (1,270 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,200 ft^3/s (430 m^3/s) Mar. 9, gage height, 12.08 ft (3.682 m), no peak above base of 20,000 ft^3/s (566 m^3/s); minimum, 63 ft^3/s (1.78 m^3/s) Oct. 8, 9, 12-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	322	118	161	172	3440	1010	387	478	177	86	91
2	71	313	118	587	158	2950	970	451	451	185	86	86
3	69	211	115	1240	147	2490	947	1780	429	169	83	83
4	69	191	112	881	141	2140	947	1780	459	164	82	82
5	67	171	109	612	154	1840	1040	1500	429	162	80	82
6	67	104	104	453	168	1640	1030	1340	390	160	80	79
7	67	96	103	366	151	[illegible]	986	1170	370	155	80	78
8	67	87	115	316	168	10900	1110	1030	363	151	80	75
9	65	85	175	270	168	8520	980	909	343	147	79	71
10	67	107	151	377	151	[illegible]	836	843	332	144	79	69
11	67	134	126	561	147	[illegible]	756	829	320	140	76	69
12	67	127	112	1560	137	3310	701	700	317	136	76	67
13	67	[illegible]	109	1170	131	[illegible]	[illegible]	[illegible]	307	132	[illegible]	67
14	65	[illegible]	103	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	67
15	65	[illegible]	103	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	67
16	65	[illegible]	101	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	118	71	72
17	65	[illegible]	101	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	150
18	65	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1976 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible] AC-FT [illegible]
WTR YR 1977 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible] AC-FT [illegible]

Discharge at ungaged sites

Monthly records for the following sites have been computed by routing methods described in USGS Circular 550. Circular 550 contains monthly records for these sites for water years 1928-65, including monthly flows adjusted for major upstream storage. Figures given here represent unadjusted flows, and are rated fair. Adjusted records are available from Northwest Water Resources Data Center, Portland, Oregon.

14144700 COLUMBIA RIVER AT VANCOUVER, WA.--Lat 45°37'15", long 122°40'20", in NE¼NW¼ sec.34, T.2 N., R.1 E., Clark County, Hydrologic Unit 17080001, 5.0 mi (8.0 km) upstream from Willamette River, and at mile 106.5 (171.4 km). Drainage area, 241,000 mi^2 (624,200 km^2), approximately. Records available, monthly discharge October 1927 to current year. Daily discharge for October 1963 to September 1969, published in annual data reports for Oregon, 1965-67, 1969.

14211808 WILLAMETTE RIVER (mouth) AT PORTLAND, OR.--Lat 45°37'09", long 122°47'27", Multnomah County, Hydrologic Unit 17090012, center of channel at bifurcation of Willamette River and Multnomah Channel, and at mile 3.4 (5.5 km). Drainage area 11,200 mi^2 (29,000 km^2), approximately. Records available, monthly discharge October 1927 to September 1972. See station 14211720 for equivalent records for current year.

14222870 COLUMBIA RIVER AT SAINT HELENS, OR.--Lat 45°51'58", long 122°47'00", Columbia County, Hydrologic Unit 17080003, center of channel at intersection of Township (4/5N) line and Oregon-Washington boundary, 0.6 mi (1.0 km) east of Saint Helens and at mile 86.0 (138.3 km). Drainage area, 253,900 mi^2 (657,600 km^2), approximately. Records available, monthly discharge October 1927 to current year.

14246900 COLUMBIA RIVER AT LONGVIEW, WA.--Lat 46°06'22", long 122°57'14", Cowlitz County, Hydrologic Unit 17080003, at Longview Bridge, 1.0 mi (1.6 km) south of Longview, 2.0 mi (3.2 km) downstream from Cowlitz River, and at mile 66.0 (106.2 km). Drainage area, 256,700 mi^2 (664,900 km^2), approximately. Records available, monthly discharge October 1927 to current year.

14260000 COLUMBIA RIVER AT MOUTH, NEAR ASTORIA, OR.--Lat 46°15', long 124°05', Clatsop County, Hydrologic Unit 17080006, center of channel at river mouth, due north from original end of south jetty, 12.3 mi (19.8 km) northwest of Astoria, and at mile 0. Drainage area, 258,000 mi^2 (668,200 km^2), approximately. Records available, monthly discharge October 1927 to current year.

MONTHLY AND ANNUAL MEAN DISCHARGE IN CUBIC FEET PER SECOND

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
14144700 COLUMBIA RIVER AT VANCOUVER, WA													
1977	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14222870 COLUMBIA RIVER AT SAINT HELENS, OR													
1977	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14246900 COLUMBIA RIVER AT LONGVIEW, WA													
1977	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14260000 COLUMBIA RIVER AT MOUTH, NEAR ASTORIA, OR													
1977	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

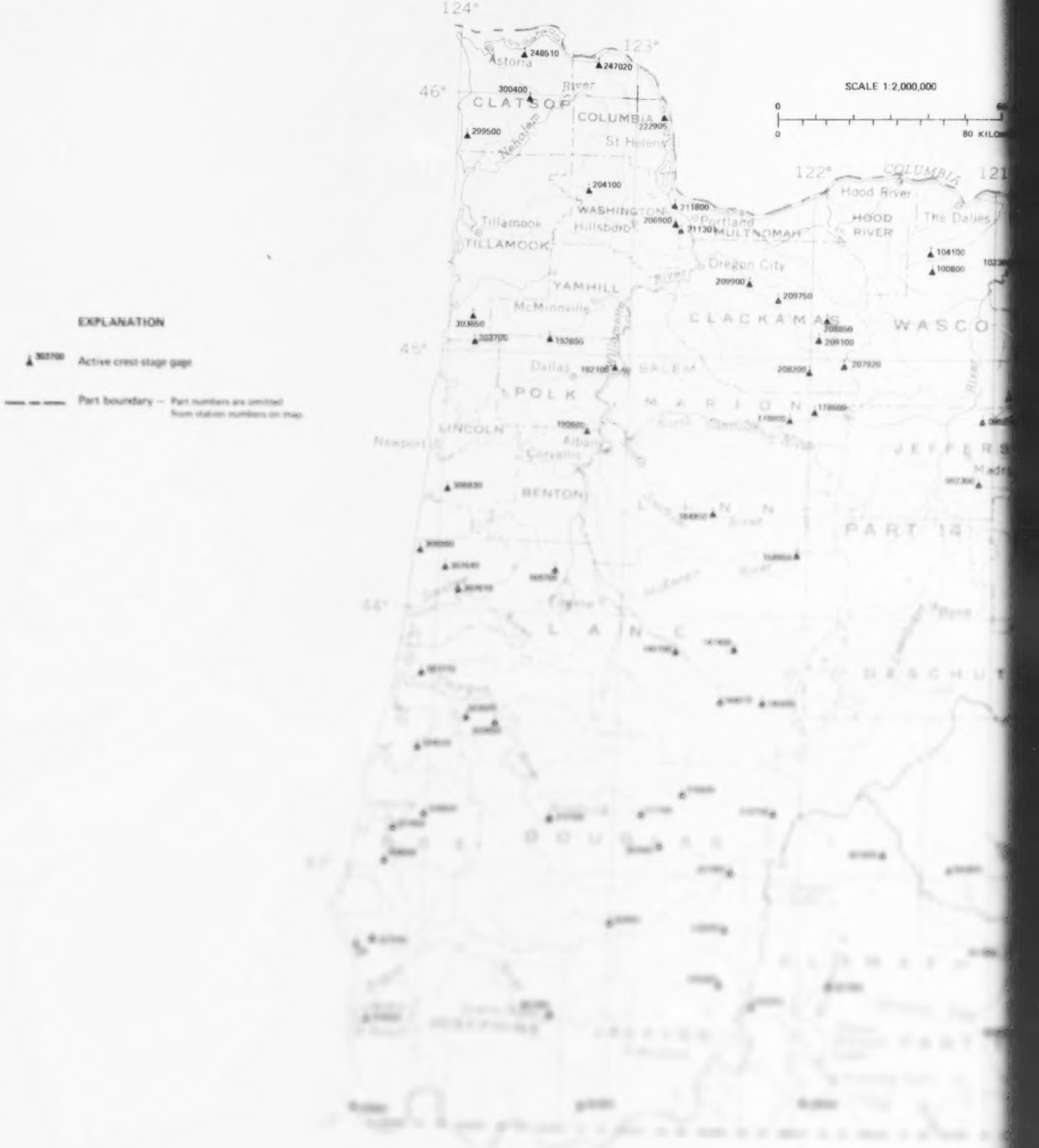
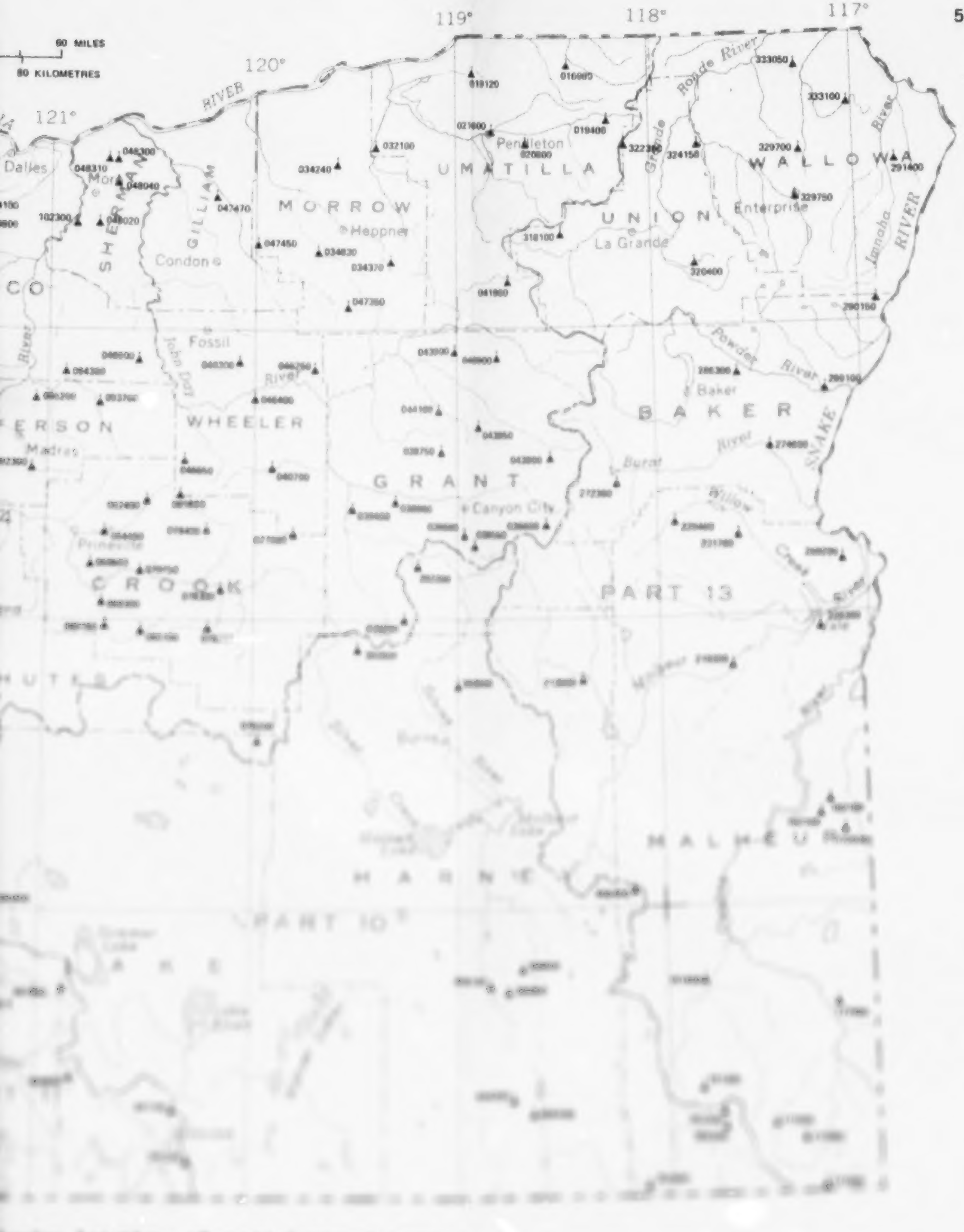

EXPLANATION
Active crest-stage gage
Part boundary — Part numbers are omitted from station numbers on map.
SCALE 1:2,000,000
0
0
80 KIL
124°
123°
122°
121
46°
45°
44°
Astoria
248610
247020
300400
River
CLATSOP
COLUMBIA
222905
St Helens
299500
Nehalem
204100
COLUMBIA
Hood River
HOOD RIVER
The Dalles
211800
WASHINGTON
206900
Portland
211301
MULTNOMAH
Tillamook
Hillsboro
TILLAMOOK
104100
100800
Oregon City
209900
209750
YAMHILL
River
McMinnville
CLACKAMAS
WASCO
303650
302705
192800
208850
209100
Dallas
192100
SALEM
208200
207920
POLK
MARION
178600
LINCOLN
190600
Newport
Albany
Corvallis
JEFFERS
Madr
306930
BENTON
LINN
PART 14
Eugene
LANE
DESCHUT
DOUGLAS
JACKSON

Figure 4.—Map of Oregon show


60 MILES
80 KILOMETRES
121°
120°
119°
118°
117°
RIVER
Dalles
Moro
SHERMAN
GILLIAM
Condon
MORROW
Heppner
UMATILLA
Pendleton
UNION
La Grande
WALLOWA
Enterprise
Grande Ronde River
Imnaha RIVER
Fossil
John Day River
WHEELER
Madras
GRANT
Canyon City
BAKER
Baker
Powder River
Burnt River
Willow Creek
SNAKE
Prineville
CROOK
PART 13
Malheur River
MALHEUR
HARNEY
PART 10
LAKE
019120
016000
021600
020800
019400
322300
324150
333050
333100
329700
291400
329750
032100
034240
048300
048310
048040
047470
102300
048020
047450
034830
034370
047360
318100
320400
041800
290150
043000
046900
286300
290100
044100
042850
038750
043000
274000
272300
046400
046650
050700
047360
048600
053760
054300
046250
050200

…howing locations of partial-record stations.

Crest-stage partial-record stations

The following table contains annual maximum discharge for crest-stage stations. A crest-stage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		QUINN RIVER BASIN (NEVADA)					
10352200	BLUE MOUNTAIN CREEK TRIBUTARY NEAR MCDERMITT, NV (Station discontinued)	Lat 42°17'03", long 117°43'06", in SW¼ sec.7, T.38 S., R.43 E., Malheur County, at culvert on BLM access road, 0.1 mile upstream from mouth, 0.5 mile south of Reservoir No. 4, and 22 miles north of McDermitt.	a2.2	1972-77	-	-	0
10352300	JACKSON CREEK TRIBUTARY NEAR MCDERMITT, NV (Station discontinued)	Lat 42°14'00", long 117°44'20", in N½ sec. 36, T.38 S., R.42 E., Malheur County, at culvert on BLM Star Valley Road 930-0, 15 miles north of McDermitt.	a6.6	1969-77	-	-	<1
10352400	TURNER CREEK NEAR MCDERMITT, NV (Station discontinued)	Lat 42°02'18", long 118°06'55", in SW¼ sec.2, T.41 S., R.39 E., Malheur County, at culvert on BLM access road, 20 miles west of McDermitt.	a2.0	1972-77	-	-	0
		SILVER LAKE BASIN					
10390400	BRIDGE CREEK NEAR THOMPSON RESERVOIR, OR	Lat 43°01'30", long 121°12'00" in S½ sec.29, T.29 S., R.13 E., Lake County, in Fremont National Forest, at culvert on Forest Service road 2000, 7.2 miles northwest of Thompson Reservoir, and 11 miles southwest of town of Silver Lake.	10.6	1965-77	6-13-77	9.37	38
		MALHEUR AND HARNEY LAKES BASIN					
[illegible]	SILVIES RIVER NEAR SENECA, OR	Lat 44°10'30", long 119°12'30", in NW¼NW¼ sec.23, T.16 S., R.29 E., Grant County, in Malheur National Forest, at culvert on Forest Service road 1611, 100 feet downstream from [illegible] Creek, and 12 miles northeast of Seneca.	18.4	1967-77	6- 9-77	-	b1.0
[illegible]	[illegible] CREEK NEAR BURNS, OR	Lat 43°33'10", long 119°29'30", in NE¼ sec.29, T.19 S., R.27 E., Harney County, in Ochoco National Forest, at culvert on Forest Service road [illegible], 1 mile upstream from mouth, and 31 miles northwest of Burns.	8.50	1964-77	6- 8-77	8.33	22
[illegible]	[illegible] CANYON NEAR BURNS, OR	Lat 43°[illegible], long 119°[illegible], in NE¼ sec.[illegible], T.[illegible] S., R.[illegible] E., Harney County, at culvert on U.S. Highway 395, at junction with road to [illegible] Corral, 0.7 mile south of Ochoco National Forest boundary, and 13 miles north of Burns.	4.90	1963-77	6- 6-77	12.32	[illegible]
[illegible]	[illegible] RIVER TRIBUTARY NEAR FRENCHGLEN, OR (Station discontinued)	Lat 42°[illegible], long 118°[illegible], in [illegible] sec.[illegible], T.[illegible] S., R.[illegible] E., Harney County, at culvert on BLM Steens Mountain Road, [illegible] mi ([illegible] km) south of Frenchglen.	[illegible]	[illegible]	-	-	[illegible]
[illegible]	[illegible] CREEK TRIBUTARY NEAR FRENCHGLEN, OR (Station discontinued)	Lat 42°[illegible], long 118°[illegible], in [illegible] sec.[illegible], T.[illegible] S., R.[illegible] E., Harney County, at culvert on BLM Steens Mountain Road, [illegible] mi ([illegible] km) east of Frenchglen.	[illegible]	[illegible]	-	-	[illegible]
[illegible]	[illegible] CANYON NEAR FRENCHGLEN, OR (Station discontinued)	Lat 42°[illegible], long 118°[illegible], in [illegible] sec.[illegible], T.[illegible] S., R.[illegible] E., Harney County, at culvert on BLM Steens Mountain Road, [illegible] mi ([illegible] km) south of Frenchglen.	[illegible]	[illegible]	-	-	[illegible]
		[illegible] VALLEY BASIN					
[illegible]	[illegible] CANYON NEAR [illegible], OR (Station discontinued)	[illegible]	[illegible]	[illegible]	-	-	[illegible]
		[illegible] VALLEY BASIN					
[illegible]	[illegible] VALLEY TRIBUTARY NEAR [illegible], OR (Station discontinued)	[illegible]	[illegible]	[illegible]	-	-	[illegible]

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Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum Date	Annual maximum Gage height (ft)	Annual maximum Discharge (ft³/s)
		PUEBLO VALLEY BASIN					
10406490	FIELDS CREEK TRIBUTARY NEAR FIELDS, OR (Station discontinued)	Lat 42°16'48", long 118°40'06", in SE¼SE¼ sec.31, T.37 S., R.33 E., Harney County, at culvert on Highway 205 (Pueblo Valley Road), 1.1 mi (1.8 km) north of Fields.	8.85	1975-77	-	-	0
		GOOSE LAKE BASIN					
11341100	SALT CREEK NEAR LAKEVIEW, OR	Lat 42°17'35", long 120°20'43", in NW¼ sec.10, T.38 S., R.20 E., Lake County, at culvert on U.S. Highway 395, 1.7 miles upstream from mouth 2.6 miles north of Warner Valley Junction, and 7.6 miles north of Lakeview.	5.62	1964-77	6-13-77	12.80	.60
11341200	CRANE CREEK NEAR LAKEVIEW, OR	Lat 42°07'05", long 120°17'25", in NW¼ sec.7, T.40 S., R.21 E., Lake County, in Fremont National Forest, at culvert on Crane Creek road, 1.5 miles east of crossing at U.S. Highway 395, and 6 miles southeast of Lakeview.	11.4	1966-77	6-13-77	11.91	47
		KLAMATH RIVER BASIN					
11491800	MOSQUITO CREEK NEAR SHEVLIN, OR	Lat 43°05'40", long 121°32'50", in SE¼SE¼ sec.32, T.28 S., R.10 E., Klamath County, in Winema National Forest, at culvert on Forest Service road 203A, 150 ft south of intersection with road 203, 2 miles southwest of Jacks Corral, and 8 miles southeast of Shevlin.	2.63	1961-77	6-13-77	7.23	4.5
11494800	BROWNSWORTH CREEK NEAR BLY, OR	Lat 42°25'40", long 120°50'20", in NW¼NW¼ sec.20, T.36 S., R.16 E., Lake County, at culvert on Forest Service road 3610, in Fremont National Forest, 2 miles upstream from Hammond Creek, and about 12 miles east of Bly.	2.20	1965-77	6-13-77	11.75	35
11497800	[illegible] CREEK NEAR PAISLEY, OR	Lat 42°42'55", long 120°52'50", in NW¼NW¼ sec.18, T.33 S., R.16 E., Lake County, in Fremont National Forest, at culvert on Forest Service road 337, 100 ft west of junction with road 3313, 1.4 miles upstream from mouth, and 17 miles west of Paisley.	2.60	1963-77	6-13-77	11.75	4.5
11501500	CRYSTAL CREEK NEAR CHILOQUIN, OR	Lat 42°33'45", long 121°50'20", in SE¼ sec.2, T.35 S., R.7 E., Klamath County, in Winema National Forest, at culvert on Chiloquin Ridge road, 200 ft upstream from mouth, and 1.5 miles southwest of Chiloquin.	3.77	1963-77	3- 1-77	13.13	12
[illegible]	LOST CREEK NEAR ROCKY POINT, OR	Lat 42°[illegible], long 121°[illegible], in [illegible] sec.[illegible], T.[illegible] S., R.[illegible] E., Klamath County, in Winema National Forest, at culvert on Forest Service road [illegible], [illegible] miles east of Long Lake, and [illegible] miles east of Rocky Point.	15.2	1966-77	[illegible]	6.75	28
[illegible]	KLAMATH RIVER TRIBUTARY NEAR KENO, OR	Lat [illegible], long [illegible], in [illegible] sec.[illegible], T.[illegible] S., R.[illegible] E., Klamath County, at culvert on State Highway 66, [illegible] miles upstream from mouth, [illegible] miles west of Keno, and [illegible] miles west of Klamath River bridge.	[illegible]	1966-77	-	[illegible]	[illegible]
		[illegible] RIVER BASIN					
[illegible]	[illegible] CREEK TRIBUTARY NEAR [illegible], OR (Station discontinued)	[illegible]	.76	[illegible]	[illegible]	[illegible]	[illegible]
		[illegible] RIVER BASIN					
[illegible]	[illegible] CREEK NEAR [illegible], OR (Station discontinued)	[illegible]	[illegible]	[illegible]	-	-	[illegible]
[illegible]	[illegible] CREEK TRIBUTARY NEAR [illegible], OR (Station discontinued)	[illegible]	[illegible]	[illegible]	-	-	[illegible]

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum Date	 Gage height (ft)	 Discharge (ft³/s)
		OWYHEE RIVER BASIN--Continued					
13177895	ANTELOPE CREEK TRIBUTARY NEAR MCDERMITT, NV (Station discontinued)	Lat 42°15'55", long 117°31'45", in NW¼ sec.23, T.38 S., R.44 E., Malheur County, at culvert on BLM Star Valley road, 21 miles northeast of McDermitt.	3.20	1971-77	-	-	0
13177980	INDIAN CREEK NEAR JORDAN VALLEY, OR (Station discontinued)	Lat 42°39'25", long 117°12'10", in NE¼ sec.28, T.33 S., R.45 E., Malheur County, at culvert on BLM Soldier Creek project road, 24 miles south of Jordan Valley.	a4.0	1970-77	-	-	0
13181300	CROOKED CREEK NEAR BURNS JUNCTION, OR (Station discontinued)	Lat 42°24'09", long 117°51'27", in SW¼ sec.36, T.36 S., R.41 E., Malheur County, at twin culverts on U.S. Highway 95, 0.6 mile south of Basque maintenance yards, and 24.5 miles south of Burns Junction.	46.2	1973-77	-	-	0
13181400	CROOKED CREEK TRIBUTARY AT BURNS JUNCTION, OR (Station discontinued)	Lat 42°45'48", long 117°51'15", in SW¼ sec.19, T.32 S., R.40 E., Malheur County, at culvert on U.S. Highway 95, 0.95 mile south of Burns Junction, and 13 miles southwest of Rome.	4.83	1973-77	-	-	0
13182100	DAGO GULCH NEAR ROCKVILLE, OR (Station discontinued)	Lat 43°17'37", long 117°15'14", in SW¼SE¼ sec.18, T.26 S., R.45 E., Malheur County, at culvert on Bureau of Land Management Leslie Gulch Road, 0.2 mile west of Runaway Creek, and 8 miles west of Rockville.	3.09	1970-77	-	-	0
13182150	LONG GULCH NEAR ROCKVILLE, OR (Station discontinued)	Lat 43°19'17", long 117°11'42", in NW¼NE¼ sec.10, T.26 S., R.45 E., Malheur County, at culvert on Bureau of Land Management Leslie Gulch Road, 1.3 miles upstream from Bannock Gulch, and 4 miles west of Rockville.	1.38	1970-77	-	-	0
		MALHEUR RIVER BASIN					
13213900	MALHEUR RIVER TRIBUTARY NEAR DREWSEY OR	Lat 43°46'56", long 118°21'30", in S½ sec.36, T.20 S., R.35 E., Harney County, at culvert on county road to Drewsey, 200 feet north of U.S. Highway 20, and 2 miles south of Drewsey.	2.28	1964-77	-	-	0
13219300	MALHEUR RIVER TRIBUTARY NEAR HARPER, OR	Lat 43°48'51", long 117°39'13", in SE¼ sec.23, T.20 S., R.41 E., Malheur County, at culvert on U.S. Highway 20, 4 miles southwest of Harper.	.10	1968-77	-	-	0
13228300	LYTLE CREEK NEAR VALE, OR	Lat 43°57'26", long 117°13'33", in SW¼ sec.32, T.18 S., R.45 E., Malheur County, at culvert on Lytle Boulevard, 2 miles south of Vale.	6.46	1968-77	6-15-77	11.21	117
13229400	LOST VALLEY CREEK TRIBUTARY NEAR IRONSIDE, OR	Lat 44°18'50", long 117°54'10", in SW¼ sec.26, T.14 S., R.39 E., Malheur County, at culvert on U.S. Highway 26, 2.2 miles east of Ironside.	1.86	1966-77	-	-	0
13231700	CANYON CREEK TRIBUTARY NEAR BROGAN, OR	Lat 44°15'50", long 117°37'15", in NW¼ sec.18, T.15 S., R.42 E., Malheur County, at culvert on U.S. Highway 26, 0.3 mile upstream from mouth, and 5.8 miles west of Brogan.	1.24	1967-77	-	-	62
		[illegible] HOLLOW BASIN					
[illegible]	[illegible] HOLLOW TRIBUTARY NEAR WEISER, ID	Lat 44°[illegible], long 117°[illegible], in [illegible] sec.[illegible], T.[illegible] S., R.[illegible] E., Malheur County, at culvert on Interstate Highway 80N, [illegible] miles southeast of junction with U.S. Highway 30, and [illegible] miles southwest of Weiser.	.90	1964-77	[illegible]	[illegible]	[illegible]
		BURNT RIVER BASIN					
[illegible]	[illegible] CREEK TRIBUTARY NEAR [illegible], OR	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	BURNT RIVER TRIBUTARY AT [illegible], OR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	 Gage height (ft)	 Discharge (ft^3/s)
		POWDER RIVER BASIN					
13286300	WATERSPOUT CREEK NEAR BAKER, OR	Lat 44°50'10", long 117°33'45", in SE¼ sec.28, T.8 S., R.42 E., Baker County, at culvert on State Highway 86, 14 miles east of Baker.	.96	1968-77	8- 6-77	16.08	98
13289100	IMMIGRANT GULCH NEAR RICHLAND, OR	Lat 44°47'10", long 117°08'05", in NW¼ sec.18, T.9 S., R.46 E., Baker County, at culvert on State Highway 86, 1.9 miles northeast of Richland, and 2.0 miles above maximum flow line of Brownlee Reservoir.	6.64	1964-77	5-24-77	-	c.2
		PINE CREEK BASIN					
13290150	NORTH PINE CREEK NEAR HOMESTEAD, OR	Lat 45°05'25", long 116°53'45", in NW¼ sec.31, T.5 S., R.48 E., Baker County, at culvert on Forest Service road S51, 300 ft upstream from Doe Creek, and 5 miles northwest of Homestead.	2.89	1965-77	5-10-77	-	c1.5
		IMNAHA RIVER BASIN					
13291400	DEER CREEK NEAR IMNAHA, OR	Lat 45°33'00", long 116°47'30", in SW¼ sec.23, T.1 N., R.48 E., Wallowa County, in Wallowa-Whitman National Forest, at culvert on Forest Service road N206, 2 miles southeast of Imnaha.	1.73	1965-77	-	-	0
		GRANDE RONDE RIVER BASIN					
13318100	MCINTYRE CREEK NEAR STARKEY, OR	Lat 45°19'40", long 118°26'55", in SE¼SE¼ sec.5, T.3 S., R.35 E., Union County, in Wallowa-Whitman National Forest, at culvert on Forest Service road S217, 1.8 miles south of Union County line, and 7 miles north of Starkey.	1.80	1966-77	6- 8-77	13.68	7.8
13320600	LITTLE CREEK AT HIGH VALLEY, NEAR UNION, OR	Lat 45°12'45", long 117°46'30", in SW¼SE¼ sec.14, T.4 S., R.40 E., Union County, at county road bridge, 4 miles east of Union.	15.8	1948, 1952-77	6- 7-77	10.00	38
13322300	DRY CREEK NEAR BINGHAM SPRINGS, OR	Lat 45°38'10", long 118°08'55", in NE¼SE¼ sec.24, T.2 N., R.37 E., Umatilla County, in Umatilla National Forest, at culvert on Forest Service road N32 (Buckel Road), at Umatilla County line, 9 miles southeast of Bingham Springs.	1.37	1956-77	4- 7-77	29.68	16
13324130	[illegible] CANYON TRIBUTARY NEAR MINAM, OR	Lat 45°36'35", long 117°47'45", in NE¼ sec.36, T.2 N., R.40 E., Union County, at culvert on county road, 0.2 mile upstream from mouth, 3.5 miles west of Minam.	.99	1967-77	-	-	0
13329700	[illegible] CREEK TRIBUTARY NEAR [illegible], OR	Lat 45°33'30", long 117°15'35", in center of sec.1, T.1 N., R.44 E., Wallowa County at culvert on State Highway 3, 0.2 mile upstream from mouth, 1.0 mile south of Wallowa-Whitman National Forest boundary and 9.5 miles southeast of [illegible].	.20	1967-77	-	-	0
13329730	TROUT CREEK TRIBUTARY AT ENTERPRISE, OR (Station discontinued)	Lat 45°26'20", long 117°17'30", in NW¼ sec.33, T.1 S., R.44 E., Wallowa County, at culvert on State Highway 3, 0.9 mile north of junction with State Highway 82 in Enterprise.	[illegible]	1967-77	-	-	0
[illegible]	[illegible] CREEK NEAR FLORA, OR	Lat 45°53'25", long 117°17'00", on sec. line 23 and 26, T.3 N., R.44 E., Wallowa County, at two culverts on county road, 1.0 mile east of junction with State Highway 3, 1.5 miles southeast of Flora.	.47	1967-77	3- 2-77	[illegible]	[illegible]
[illegible]	[illegible] CREEK NEAR IMNAHA, OR	[illegible] Wallowa County, in Wallowa-Whitman National Forest, at culvert on Forest Service road [illegible], [illegible] miles northeast of Imnaha.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		WALLA WALLA RIVER BASIN					
[illegible]	DRY CREEK TRIBUTARY NEAR MILTON-FREEWATER, OR	[illegible] Umatilla County, at culvert on State Highway [illegible], [illegible] miles south of Milton-Freewater.	[illegible]	[illegible]	-	-	0
		[illegible] CANYON BASIN					
[illegible]	NORTH FORK [illegible] CANYON TRIBUTARY AT [illegible], OR	[illegible] Umatilla County, at culvert on county road, [illegible]	[illegible]	[illegible]	-	-	0

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Annual maximum Gage height (ft)	Annual maximum Discharge (ft^3/s)
		UMATILLA RIVER BASIN					
14019400	ELBOW CREEK NEAR BINGHAM SPRINGS, OR	Lat 45°42'45", long 118°11'54", in NE¼ sec.28, T.3 N., R.37 E., Umatilla County, in Umatilla National Forest, at culvert on Forest Service road N32, 200 ft upstream from mouth, and 2.6 miles southeast of Bingham Springs.	.68	1965-77	3- 9-77	11.61	9.0
14020800	MISSION CREEK AT ST. ANDREWS MISSION, OR	Lat 45°38'05", long 118°37'18", in SE¼ sec.24, T.2 N., R.33 E., Umatilla County, at culvert on county road, 0.1 mile east of St. Andrews School, and 8 miles east of Pendleton.	4.45	1958, 1963-77	4- 7-77	14.49	9.0
14021600	NELSON CREEK AT PENDLETON, OR	Lat 45°40'56", long 118°48'24", on line between sec.3 and 4, T.2 N., R.32 E., Umatilla County, at culvert on U.S. Highway 395, 0.7 mile upstream from mouth, and 0.5 mile northwest of Pendleton.	2.56	1958-77	-	-	0
		JUNIPER CANYON BASIN					
14034240	LITTLE JUNIPER CANYON NEAR PINE PINE, OR	Lat 45°33'32", long 119°36'00", in NE¼NW¼ sec.19, T.1 N., R.26 E., Morrow County, at culvert on county road, 8.0 miles west of Pine City.	4.87	1968-77	-	-	0
		WILLOW CREEK BASIN					
14034370	WILLOW CREEK TRIBUTARY NEAR HEPPNER, OR	Lat 45°13'40", long 119°20'00", in SW¼ sec.9, T.4 S., R.28 E., Morrow County, at culvert on Willow Creek Road, 300 ft above mouth, and 16.1 miles southeast of Heppner.	1.11	1958-77	-	-	0
14034830	CASON CANYON AT RUGGS, OR	Lat 45°15'50", long 119°41'05", in SW¼NE¼ sec.34, T.3 S., R.25 E., Morrow County, at culvert on Rhea Creek road, at junction with State Highway 207, at Ruggs.	2.21	1968-77	-	-	0
		JOHN DAY RIVER BASIN					
14036800	JOHN DAY RIVER NEAR PRAIRIE CITY, OR	Lat 44°19'10", long 118°33'25", in SE¼SW¼ sec.30, T.14 S., R.35 E., Grant County at culvert on Forest Service road 1427, in Malheur National Forest, 200 ft downstream from Call Creek, and 12 miles southeast of Prairie City.	17.4	1968-77	6- 8-77	7.72	38
14038550	EAST FORK CANYON CREEK NEAR CANYON CITY, OR	Lat 44°16'43", long 118°36'40", in NE¼ sec.30, T.15 S., R.32 E., Grant County, in Malheur National Forest, at culvert on Forest Service road 1431, at mouth, and 10 miles south of Canyon City.	26.8	1965-77	6- 1-77	10.78	45
[illegible]	VANCE CREEK NEAR CANYON CITY, OR	Lat 44°17'20", long 118°58'30", in NE¼ sec.10, T.15 S., R.31 E., Grant County, at culvert on U.S. Highway 395, at confluence with South Fork, 1.0 mile upstream from mouth, and 9.3 miles south of Canyon City.	6.56	1966-77	4-27-77	-	5.5
[illegible]	[illegible] CREEK NEAR FOX, OR	[illegible], Grant County, at culvert on U.S. Highway 395, at entrance to Beech Creek Forest Camp, and 6.0 miles south of Fox.	[illegible]	1963-77	4-27-77	-	[illegible]
[illegible]	[illegible] CREEK NEAR MOUNT VERNON, OR	[illegible], Grant County, in Malheur National Forest, at culvert on Forest Service road [illegible], [illegible] mile upstream from Big Canyon and 12 miles east of Mt. Vernon.	17.5	[illegible]	-	-	0
[illegible]	[illegible] CREEK NEAR [illegible], OR	[illegible], Grant County, in Malheur National Forest, at culvert on Forest Service road [illegible], [illegible] miles above mouth, and [illegible] miles [illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]
[illegible]	[illegible] CREEK NEAR [illegible], OR ([illegible])	[illegible], Grant County, at culvert on [illegible] road [illegible], at mouth, [illegible] miles south of [illegible].	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum Date	Gage height (ft)	Dis-charge (ft³/s)
		JOHN DAY RVER BASIN--Continued					
14040700	WHISKY CREEK NEAR MITCHELL, OR	Lat 44°31'21", log 119°55'18", in SE¼ sec.14, T.12 S., R.23 E, Wheeler County, at culvert on U.S. Highway26, 13.6 miles east of Mitchell.	2.22	1968-77	-	-	0
14040900	BRUIN CREEK NEAR DALE, OR	Lat 44°53'51", log 118°47'35", in SW¼ sec.6, T.8 S., R.33 E. Grant County, at culvert on Forest Service oad SA-12, 12 miles southeast of Dale.	4.63	1969-77	8-26-77	-	b1.0
14041900	LINE CREEK NEAR LEHMAN SPRINGS, OR	Lat 45°10'10", log 118°42'40", in NW¼ sec.3, T.5 S., R.33 E. Umatilla County, in Umatilla National Forest at culvert on Forest Service road 524, 0.2 mie upstream from mouth, and 2 miles west of Laman Springs.	2.27	1965-77	4- 7-77	11.89	34
14043800	BRIDGE CREEK NEAR PRAIRIE CITY, OR	Lat 44°32'30", log 118°32'25", in NE¼ sec.7, T.12 S., R.35 E. Grant County, at culvert at intersection of ooney Springs Road and U.S. Highway 26, 3.1 miles east of Dixie Summit, and 13.4 miles ast of Prairie City.	6.93	1964-77	4-25-77	7.06	c5.0
14043850	COTTONWOOD CREEK NEAR GALENA, OR	Lat 44°39'10", log 118°51'55", in SE¼ sec.33, T.10 S., R.32 E. Grant County, in Malheur National Forest at culvert on Forest Service road 1015, 2.5 iles upstream from mouth, and 4 miles south o Galena.	3.89	1965-77	4- 7-77	11.03	46
14043900	GRANITE CREEK NEAR DALE, OR	Lat 44°53'40", log 119°00'50", in NW¼ sec.8, T.8 S., R.31 E. Grant County, at culvert on U.S. Highway 39 4.7 miles north of bridge on Middle Fork hn Day River, and 8.2 miles south of Dale.	1.90	1965-77	4-27-77	-	b.1
14044100	PAUL CREEK NEAR LONG CREEK, OR	Lat 44°43'26", log 119°07'54", in SE¼ sec.5, T.10 S., R.30 E Grant County, at culvert on State Highway 207, 1.5 miles east of long Creek.	3.50	1968-77	4-27-77	-	b.01
14046250	IVES CANYON NEAR SPRAY, OR	Lat 44°51'35", lo 119°42'50", in SE¼NE¼ sec.22, T.8 S., R.25 E., Wheeler County, at culvert on State Highway 207, 4 miles south of National Forest boundary, and 4 miles north-east of Spray.	2.73	1967-77	8- 8-77	13.60	52
14046300	BIG SERVICE CREEK NEAR SERVICE CREEK, OR	Lat 44°53'30", lo 120°04'11", in NE¼NE¼ sec.10, T.8 S., R.22 E., Wheeler County, at culvert on State Highway 19, 7.8 miles north of Service Creek.	5.56	1968-77	4-26-77	-	b.05
[illegible]	DONNELLY CREEK TRIBUTARY NEAR SERVICE CREEK, OR	Lat 44°44'20", lo 120°00'10", in SE¼ sec.19, T.9 S., R.23 E. Wheeler County, at two culverts on State Highway 207, 1.0 miles south of Service Creek.	1.83	1964-77	-	-	0
[illegible]	[illegible] CREEK NEAR MITCHELL, OR	Lat 44°33'05", lo 120°20'25", in SW¼ sec.4, T.12 S., R.20 E Wheeler County, at culvert on U.S. Highway 26, 11.5 miles west of Mitchell.	.28	1968-77	-	-	0
[illegible]	JOHN DAY RIVER TRIBUTARY NEAR CLARNO, OR	Lat 44°54'20", lo 120°34'05", in NE¼ sec.4, T.8 S., R.19 E. [illegible] County, at culvert on [illegible] Highway [illegible], 5 miles west of Clarno, and 8 miles east of Antelope.	1.36	1969-77	-	-	0
[illegible]	[illegible] CREEK NEAR HARDMAN, OR	[illegible]	[illegible]	1965-77	[illegible]	-	[illegible]
[illegible]	[illegible]	[illegible]	.82	[illegible]	-	-	0
[illegible]	[illegible] CANYON TRIBUTARY NEAR [illegible], OR	[illegible]	[illegible]	[illegible]	-	-	0
[illegible]	GRASS VALLEY CANYON NEAR GRASS VALLEY, OR	[illegible]	[illegible]	[illegible]	-	-	0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum Date	Annual maximum Gage height (ft)	Annual maximum Discharge (ft³/s)
		SPANISH HOLLOW BASIN					
14048300	SPANISH HOLLOW AT WASCO, OR	Lat 45°35'20", long 120°41'40", in NE¼ sec.9, T.1 N., R.17 E., Sherman County, at culvert on street in southeast Wasco, 1 block east of U.S. Highway 97.	8.05	1959-77	-	-	0
14048310	SPANISH HOLLOW TRIBUTARY AT WASCO, OR	Lat 45°35'30", long 120°42'55", on sec. lines 5 and 8, T.1 N., R.17 E., Sherman County, on State Highway 206, 0.9 mile west of junction of Highway 97 in Wasco.	6.13	1967-77	-	-	0
		DESCHUTES RIVER BASIN					
14077800	WOLF CREEK TRIBUTARY NEAR PAULINA, OR	Lat 44°16'39", long 119°49'00", in NW¼NW¼ sec.14, T.15 S., R.24 E., Crook County, in Ochoco National Forest, at culvert on Forest Service road 1438, 1.7 miles south of Crook County line, 13 miles northeast of Paulina.	2.15	1965-77	5-10-77	8.30	30
14078200	LIZARD GULCH NEAR HAMPTON, OR	Lat 43°35'20", long 119°59'00", in SW¼ sec.8, T.23 S., R.23 E., Lake County, in Glass Mountain conservation area, at culvert on U.S. Highway 20, and 15.5 miles east of Hampton.	19.6	1965-77	6- 7-77	8.73	22
14078280	MIDDLE FORK CAMP CREEK NEAR PAULINA, OR (Station discontinued)	Lat 43°57'24", long 120°15'30", in NW¼ sec.6, T.19 S., R.21 E., Crook County, at two culverts on Camp Creek road, 0.2 mile upstream from mouth, and 20 miles southwest of Paulina.	-	1972-77	6- 7-77	9.06	32
14078300	CEMETERY CREEK NEAR PAULINA, OR	Lat 44°06'36", long 120°10'30", in SW¼ sec.11, T.17 S., R.21 E., Crook County, at culvert on State Highway 380, 13.2 miles west of Paulina.	a5.1	1968-77	-	-	0
14078400	LOOKOUT CREEK NEAR POST, OR	Lat 44°18'40", long 120°14'24", in SW¼ sec.32, T.14 S., R.21 E., Crook County, in Ochoco National Forest, at culvert on Forest Service Road 143, and 16 miles northeast of Post.	7.53	1966-77	-	-	0
14079750	CROOKED RIVER TRIBUTARY NEAR POST, OR	Lat 44°10'42", long 120°34'06", in SE¼ sec.16, T.16 S., R.18 E., Crook County, at culvert on county road, 5.4 miles west of Post.	a.3	1968-77	-	-	0
14080100	BEAR CREEK TRIBUTARY NEAR BROTHERS, OR (Station discontinued)	Lat 43°56'17", long 120°34'51", in SE¼NW¼ sec.8, T.19 S., R.18 E., Crook County, at culvert on BLM Bear Creek road, 9 miles north of Brothers.	.86	1972-77	6- 7-77	2.26	2.2
14080180	SAGE HOLLOW TRIBUTARY NEAR MILLICAN, OR (Station discontinued)	Lat 43°58'41", long 120°43'07", in NE¼SW¼ sec.29, T.18 S., R.17 E., Crook County, at culvert on State Highway 27, 1.0 mile upstream from Bear Creek, and 12 miles northeast of Millican.	3.50	1972-77	6- 7-77	9.14	7.6
14080300	BEAR CREEK TRIBUTARY NEAR MILLICAN, OR (Station discontinued)	Lat 44°03'40", long 120°44'20", near sec. lines 30 and 31, T.17 S., R.17 E., Crook County at culvert on State Highway 27, 15 miles northeast of Millican.	6.59	1969-77	-	-	0
14080400	DRY CREEK NEAR PRINEVILLE, OR	Lat 44°12'12", long 120°43'30", in NW¼ sec.12, T.16 S., R.16 E., Crook County, at culvert on Juniper Canyon road, 8 miles southeast of Prineville.	16.3	1968-77	-	-	0
[illegible]	[illegible] CREEK NEAR MITCHELL, OR	Lat 44°26'00", long [illegible], in NE¼ sec.20, T.13 S., R.20 E., Crook County, at culvert on Forest Service road 1222, 200 ft upstream from mouth.	2.28	[illegible]	-	-	0
[illegible]	WILDCAT CREEK NEAR PRINEVILLE, OR	Lat [illegible], long [illegible], in [illegible] sec.[illegible], T.13 S., R.[illegible] E., Crook County, at culvert on U.S. Highway 26, [illegible] miles northeast of Prineville.	[illegible]	[illegible]	-	-	0
[illegible]	[illegible] RESERVOIR TRIBUTARY NEAR PRINEVILLE, OR	Lat [illegible], long [illegible], in [illegible] sec.[illegible], T.13 S., R.17 E., Crook County, at culvert on U.S. Highway 26, [illegible] miles east of Prineville.	[illegible]	[illegible]	-	-	0
[illegible]	[illegible] CREEK TRIBUTARY NEAR CULVER, OR	Lat [illegible], long [illegible], in [illegible] sec.[illegible], T.[illegible] S., R.[illegible] E., Jefferson County, in Crooked River National Grasslands, at culvert on U.S. Highway [illegible], [illegible] mile upstream from mouth, and [illegible] miles east of Culver.	[illegible]	[illegible]	-	-	0
[illegible]	[illegible] HOLLOW AT [illegible], OR	Lat [illegible], long [illegible], in [illegible] sec.[illegible], T.[illegible] S., R.[illegible] E., Jefferson County, at culvert on county road, [illegible] mile upstream from mouth, and [illegible] mile north of [illegible].	[illegible]	[illegible]	-	-	0
[illegible]	[illegible] CANYON CREEK NEAR [illegible], OR	Lat [illegible], long [illegible], in [illegible] sec.[illegible], T.[illegible] S., R.[illegible] E., Jefferson County, at culvert on U.S. Highway [illegible], [illegible] miles north of [illegible], and [illegible] southwest of [illegible].	[illegible]	[illegible]	-	-	0

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		DESCHUTES RIVER BASIN--Continued					
14095200	SAGEBRUSH CREEK TRIBUTARY NEAR GATEWAY, OR	Lat 44°45'33", long 121°02'02", in SE¼NE¼ sec.27, T.9 S., R.14 E., Jefferson County, at culvert on former U.S. Highway 97, 1 mile upstream from mouth and 11 miles north of Madras.	a7.4	1957-77	-	-	0
14100800	JORDAN CREEK NEAR TYGH VALLEY, OR	Lat 45°20'27", long 121°20'45", in SW¼NE¼ sec.6, T.3 S., R.12 E., Wasco County, in Mt. Hood National Forest, at culvert on Forest Service road S207, 10.5 miles northwest of Tygh Valley.	9.01	1965-77	11- 2-76	10.84	c7
14102300	BOX ELDER CANYON NEAR GRASS VALLEY, OR (Station discontinued)	Lat 45°21'37", long 120°54'10", in SW¼ sec.26, T.2 S., R.15 E., Sherman County, at culvert on BLM Deschutes River access road, at mouth, and 6 miles west of Grass Valley.	2.21	1971-77	-	-	0
		FIFTEENMILE CREEK BASIN					
14104100	RAMSEY CREEK NEAR DUFUR, OR	Lat 45°24'03", long 121°22'27", in NW¼ sec.13, T.2 S., R.11 E., Wasco County, in Mt. Hood National Forest, at culvert on Forest Service road S207, 12 miles west of Dufur.	3.07	1965-77	11- 2-76	9.67	c5
		WILLAMETTE RIVER BASIN					
14144870	MIDDLE FORK WILLAMETTE RIVER TRIBUTARY NEAR OAKRIDGE, OR	Lat 43°40'20", long 122°26'00", in SW¼ sec.10, T.22 S., R.3 E., Lane County, at culvert on Rigdon Road, 400 ft upstream from flow line of Hills Creek Reservoir, and 5.0 miles south of Oakridge.	.50	1960-77	4- 8-77	14.68	3.8
14145690	SWAMP CREEK NEAR MCCREDIE SPRINGS, OR (Station discontinued)	Lat 43°39'40", long 122°12'45", in SE¼ sec.16, T.22 S., R.5 E., Lane County, in Willamette National Forest, at culvert on Forest Service road 2136, 0.7 mile upstream from mouth, and 6 miles southeast of McCredie Springs.	1.31	1965-77	4- 8-77	7.60	8.4
14147600	TUMBLE CREEK NEAR WESTFIR, OR (Station discontinued)	Lat 43°52'50", long 122°22'30", in SW¼NW¼ sec.31, T.19 S., R.4 E., Lane County, in Willamette National Forest, at culvert on Forest Service road 196, at mouth, and 10.5 miles northeast of Westfir.	1.52	1965-77	4- 8-77	7.38	3.0
14148700	FERN CREEK NEAR LOWELL, OR (Station Discontinued)	Lat 43°51'30", long 122°41'05", in [illegible] sec.3, T.20 S., R.1 E., Lane County, at culvert on State Highway 58, at mouth, and 4 miles south-east of Lowell.	.44	1956-77	4- 8-77	4.62	3.2
[illegible]	TRINITY CREEK NEAR BELKNAP SPRINGS, OR (Station discontinued)	Lat 44°13'30", long 122°02'35", in [illegible] sec.31, [illegible], T.15 S., R.6 E., Lane County, in Willamette National Forest, at culvert on Forest Service road [illegible], 0.8 mile upstream from mouth, and 2.5 miles north of Belknap Springs.	1.18	1963-77	4- 7-77	19.30	8.3
[illegible]	[illegible] (Station discontinued)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] (Station discontinued)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] (Station discontinued)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] (Station discontinued)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] (Station discontinued)	[illegible]	[illegible]	[illegible]	-	-	[illegible]
[illegible]	[illegible] (Station discontinued)	[illegible]	[illegible]	[illegible]	-	-	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum Date	Annual maximum Gage height (ft)	Annual maximum Discharge (ft³/s)
		WILLAMETTE RIVER BASIN--Continued					
14204100	BATEMAN CREEK NEAR GLENWOOD, OR (Station discontinued)	Lat 45°37'30", long 123°15'40", in SW¼ sec.26, T.2 N., R.5 W., Washington County, at culvert on State Highway 6, at mouth, 1.5 miles south of Glenwood.	1.27	1952-77	9-16-77	9.94	c2.0
14206900	FANNO CREEK AT 56TH AVE. IN PORTLAND, OR	Lat 45°29'17", long 122°44'01", in NE¼NW¼ sec.18, T.1 S., R.1 E., Multnomah County,at SW 56th Avenue in Portland.	2.37	1975-77	3- 7-77	3.48	92
14207920	POOP CREEK NEAR BIG BOTTOM, OR	Lat 44°58'35", long 121°50'35", in SW¼ sec.9 (unsurveyed), T.7 S., R.8 E., Clackamas County, in Mt. Hood National Forest, at culvert on Forest Service road S650, at mouth, and 3 miles southeast of Big Bottom.	1.74	1966-77	-	-	0
14208200	COLLAWASH RIVER TRIBUTARY NEAR BREITENBUSH HOT SPRINGS, OR (Station discontinued)	Lat 44°55'50", long 122°00'40", in NE¼SE¼ sec.25, T.7 S., R.6 E., Marion County, at culvert on Forest Service road S63, 0.5 mile north of Ross Creek, and 10 miles north of Breitenbush Hot Springs.	.38	1966-77	-	-	0
14208850	EAST FORK SHELLROCK CREEK NEAR GOVERNMENT CAMP, OR (Station discontinued)	Lat 45°08'30", long 121°53'55", in NW¼ sec.13, T.5 S., R.7 E., Clackamas County, in Mt. Hood National Forest, at culvert on Forest Service road S88, 3 miles west of Timothy Lake, and 13.5 miles southwest of Government Camp.	2.30	1965-77	10-26-76	9.01	c5.5
14209100	KINK CREEK NEAR GOVERNMENT CAMP, OR (Station discontinued)	Lat 45°04'13", long 121°57'45", in SW¼ sec.4, T.6 S., R.7 E., Clackamas County, at culvert 0.1 mile downstream from Kelly Creek, 0.2 mile upstream from mouth at Lake Harriet on the Oak Grove Fork Clackamas River, and 19 miles southwest of Government Camp.	3.75	1958-77	-	-	0
14209750	WHISKY CREEK NEAR ESTACADA, OR (Station discontinued)	Lat 45°12'50", long 122°09'30", in SW¼NW¼ sec.23, T.4 S., R.5 E., Clackamas County, in Mt. Hood National Forest, at culvert on Forest Service road S457, 0.1 mile upstream from mouth, and 10 miles southeast of Estacada.	1.06	1965-77	-	-	0
14209900	DUBOIS CREEK AT ESTACADA, OR (Station discontinued)	Lat 45°16'33", long 122°20'35", in NW¼ sec.29, T.3 S., R.4 E., Clackamas County, at culvert 0.4 mile upstream from mouth, and 0.3 mile southeast of Estacada.	2.52	1957-77	-	-	0
14211301	TRYON CREEK TRIBUTARY AT DOLPH COURT IN PORTLAND, OR	Lat 45°27'43", long 122°42'18", in NE¼NW¼ sec.20, T.1 S., R.1 E., Multnomah County, at Dolph Court in Portland.	.58	1975-77	3- 7-77	1.80	86
14211000	[illegible] CREEK AT PORTLAND, OR (Station discontinued)	Lat 45°33'34", long 122°44'28", in [illegible] sec.13, T.1 S., R.1 E., Multnomah County, at culvert at intersection of S.W. [illegible] and [illegible] Streets in Portland, 420 feet downstream from U.S. Highway 30, and 0.3 mile upstream from mouth.	1.46	1952-77	9-23-76	1.2	4.7
		CLATSKANIE RIVER BASIN					
[illegible]	FALL CREEK NEAR CLATSKANIE, OR	Lat 46°[illegible], long 123°[illegible], in [illegible] sec.13, T.7 N., R.3 W., Columbia County, at culvert on private road, [illegible] feet south of State Highway 47, 2.5 miles west of Clatskanie.	1.37	1972-77	-	-	-
		[illegible] CREEK BASIN					
[illegible]	LITTLE CREEK NEAR [illegible], OR	Lat [illegible], long [illegible], in [illegible] sec.[illegible], T.[illegible], R.[illegible], [illegible] County, at culvert on [illegible] Road, 3 miles south of [illegible].	[illegible]	[illegible]	-	-	-
		[illegible] CREEK BASIN					
[illegible]	[illegible] CREEK NEAR [illegible], OR (Station discontinued)	Lat [illegible], long [illegible], in [illegible] sec.[illegible], T.[illegible], R.[illegible], [illegible] County, at culvert on U.S. Highway 101, at [illegible], 0.2 mile upstream from mouth and 4 miles south of [illegible].	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		[illegible] RIVER BASIN					
[illegible]	[illegible] CREEK NEAR [illegible], OR (Station discontinued)	Lat [illegible], long [illegible], in [illegible] sec.[illegible], T.[illegible], R.[illegible], [illegible] County, at [illegible] on State Highway [illegible], [illegible] miles [illegible] of [illegible].	.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		LITTLE NESTUCCA RIVER BASIN					
14303650	SQUAW CREEK NEAR NESKOWIN, OR (Station discontinued)	Lat 45°06'56", long 123°53'41", in NW¼ sec.27, T.5 S., R.10 W., Tillamook County, in Siuslaw National Forest, at culvert on Forest Service road S533, 1 mile upstream from mouth, and 4 miles east of Neskovin.	2.11	1965-77	3- 8-77	13.52	86
		SALMON RIVER BASIN					
14303700	ALDER BROOK NEAR ROSE LODGE, OR	Lat 45°01'20", long 123°51'10", in SE¼ sec.25, T.6 S., R.10 W., Lincoln County, at culvert on State Highway 18, 0.1 mile upstream from mouth, and 1.5 miles northeast of Rose Lodge.	1.09	1954-77	7- 8-77	11.04	e1.7
		ALSEA RIVER BASIN					
14306830	LYNDON CREEK NEAR WALDPORT, OR (Station discontinued)	Lat 44°27'02", long 123°58'50", in SE¼ sec.11, T.13 S., R.11 W., Lincoln County, in Siuslaw National Forest, at culvert on Forest Service road 1245, 0.9 mile upstream from mouth, and 4 miles northeast of Waldport.	.90	1965-77	-	-	0
		SIUSLAW RIVER BASIN					
14307610	SIUSLAW RIVER TRIBUTARY NEAR RAINROCK, OR (Station discontinued)	Lat 44°04'00", long 123°52'45", in NW¼ sec.27, T.17 S., R.10 W., Lane County, at culvert on State Highway 36, at mouth, and 1.3 miles west of Rainrock.	.42	1957-77	3- 8-77	6.28	6.6
14307640	SAM CREEK NEAR MINERVA, OR (Station discontinued)	Lat 44°09'08", long 123°56'49", in NE¼ sec.25, T.16 S., R.11 W., Lane County, in Siuslaw National Forest, at culvert on Forest Service road 1658, 5.5 miles north of Minerva.	2.58	1965-77	2-28-77	9.62	140
		UMPQUA RIVER BASIN					
14307685	MULT CREEK NEAR TILLER, OR (Station discontinued)	Lat 43°06'00", long 122°44'53", in SW¼ sec.30, T.28 S., R.1 E., Douglas County, in Umpqua National Forest, at culvert on Forest Service road 2719, at mouth, and 15.5 miles northeast of Tiller.	2.65	1965-77	5-11-77	7.94	38
14308950	BEAVER CREEK NEAR DREW, OR (Station discontinued)	Lat 42°48'40", long 122°59'30", in NE¼NE¼ sec.12, T.32 S., R.3 W., Douglas County, in Umpqua National Forest, at culvert on Forest road 3232, 0.2 mile upstream from mouth and 7 miles southwest of Drew.	1.61	1965-77	9-28-77	7.29	13
14312100	PARROTT CREEK AT ROSEBURG, OR	Lat 43°11'45", long 123°20'50", in NE¼ sec.25, T.27 S., R.6 W., Douglas County, at culvert on Starmer Street between Marsters and Booth Streets in Roseburg, 0.5 mile upstream from mouth.	2.42	1952-77	3- 8-77	8.34	2.0
14312700	THIELSEN CREEK NEAR DIAMOND LAKE, OR (Station discontinued)	Lat 43°13'10", long 122°08'15", in SW¼ sec.17, T.27 S., R.6 E., (unsurveyed), Douglas County, in Umpqua National Forest, at culvert on State Highway 209, and 3 miles north of resort of Diamond Lake.	12.2	1966-77	5-26-77	9.14	6.7
14316600	DOG CREEK NEAR IDLEYLD PARK, OR (Station discontinued)	Lat 43°17'55", long 122°38'15", in NE¼ sec.24, T.26 S., R.1 E., Douglas County, in Umpqua National Forest, at culvert on State Highway 138, 6.5 miles southeast of Steamboat ranger station, and 19 miles east of Idleyld Park.	3.93	1965-77	5-26-77	7.57	33
14317700	WHITE CREEK NEAR PEEL, OR	Lat 43°13'20", long 122°51'10", in NW¼ sec.17, T.27 S., R.1 W., Douglas County, in Umpqua National Forest, at culvert on Forest Service road 274, 0.4 mile upstream from mouth, and 9.5 miles east of Peel.	3.92	1965-77	9-28-77	8.75	39
14322850	SAWYER CREEK NEAR ELKTON, OR (Station discontinued)	Lat 43°35'54", long 123°40'12", in NW¼SE¼ sec.5, T.23 S., R.8 W., Douglas County, at culvert on BLM Sawyer Creek road, 6 miles southwest of Elkton.	a.3	1971-77	3- 8-77	8.47	9.2
14323020	BUCK CREEK TRIBUTARY NEAR SCOTTSBURG, OR	Lat 43°35'30", long 123°46'00", in NE¼NE¼ sec.9, T.23 S., R.9 W., Douglas County, at culvert on Buck Creek road, at mouth, and 5 miles south of Scottsburg.	-	1971-77	3- 8-77	8.20	1.2
14323170	SMITH RIVER TRIBUTARY NEAR GARDINER, OR (Station discontinued)	Lat 43°44'35", long 124°02'30", in SW¼SW¼ sec.17, T.21 S., R.11 W., Douglas County, at culvert on Smith River road, 3.5 miles east of Gardiner.	.13	1971-77	3- 8-77	8.10	3.0

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		COOS RIVER BASIN					
14324520	DAGGET CREEK NEAR ALLEGANY, OR (Station discontinued)	Lat 43°27'45", long 124°03'05", in N½ sec.30, T.24 S., R.11 W., Coos County, at culvert on West Fork Millicoma River road, 5 miles north of Allegany.	.41	1971-77	3- 8-77	11.13	8.8
		COQUILLE RIVER BASIN					
14326600	GETTYS CREEK NEAR MYRTLE POINT, OR (Station discontinued)	Lat 43°00'30", long 124°12'40", in SE¼SE¼ sec.35, T.29 S., R.13 W., Coos County, at culvert on county road, 0.2 mile upstream from mouth, and 5.5 miles southwest of Myrtle Point.	1.45	1953-77	3- 8-77	9.44	48
14326820	MIDDLE CREEK TRIBUTARY NEAR MCKINLEY, OR (Station discontinued)	Lat 43°11'50", long 124°01'25", in SE¼SE¼ sec.29, T.27 S., R.11 W., Coos County, at culvert on Middle Creek road, 0.6 mile north of McKinley, and 8 miles east of Coquille.	1.29	1971-77	3- 8-77	17.01	14
14327050	GLEN AIKEN CREEK TRIBUTARY NEAR COQUILLE, OR (Station discontinued)	Lat 43°08'50", long 124°09'50", in SE¼NE¼ sec.18, T.28 S., R.12 W., Coos County, at culvert on Glen Aiken Creek road, 3 miles southeast of Coquille.	.33	1971-77	3- 7-77	8.84	9.0
		ELK CREEK BASIN					
14327240	MILBURY CREEK NEAR PORT ORFORD, OR (Station discontinued)	Lat 43°43'20", long 124°15'00", in NW¼ sec.16, T.33 S., R.13 W., Curry County, in Siskiyou National Forest, at culvert on Forest Service road 325, at mouth, and 13 miles east of Port Orford.	.80	1966-77	3- 8-77	28.84	140
		BRUSH CREEK BASIN					
14327400	DRY RUN CREEK NEAR PORT ORFORD, OR	Lat 42°41'20", long 124°26'00", in NW¼ sec.25, T.33 S., R.15 W., Curry County, at culvert in Humbug Mountain State Park and 5 miles southeast of Port Orford.	.86	1954-77	3- 7-77	14.75	48
		ROGUE RIVER BASIN					
14327490	NATIONAL CREEK NEAR UNION CREEK, OR (Station discontinued)	Lat 43°00'15", long 122°21'50", in E½ sec.32, T.29 S., R.4 E., Douglas County, at culvert on Forest Service road 2967 in Rogue River National Forest, 0.3 mile upstream from mouth, and 9 miles northeast of town of Union Creek.	19.3	1965-77	5- 3-77	17.55	58
14333490	ELKHORN CREEK NEAR PROSPECT, OR (Station discontinued)	Lat 42°47'18", long 122°23'55", in SW¼NW¼ sec.18, T.32 S., R.4 E., Jackson County, at culvert on Forest Service road 3227 in Rogue River National Forest, 0.2 mile upstream from mouth, and 5 miles northeast of Prospect.	1.50	1965-77	5-23-77	8.40	11
14335080	FIRELINE CREEK NEAR BUTTE FALLS, OR (Station discontinued)	Lat 42°34'10", long 122°24'10", in SE¼ sec.36, T.34 S., R.3 E., Jackson County, in Rogue River National Forest, at culvert on Forest Service road 3520B, 0.8 mile upstream from mouth, and 8 miles east of Butte Falls.	4.77	1966-77	3-23-77	8.55	31
14361300	JONES CREEK NEAR GRANTS PASS, OR (Station discontinued)	Lat 42°26'10", long 123°17'10", in SE¼ sec.16, T.36 S., R.6 W., Josephine County, at culvert on Interstate Highway 5 and traffic interchange for Foothill Boulevard, and 2 miles east of Grants Pass.	7.41	1952-77	3-23-77	12.92	64
14362050	KINNEY CREEK NEAR MCKEE BRIDGE, OR	Lat 42°05'35", long 123°07'40", in NW¼ sec.13, T.40 S., R.4 W., Jackson County, in Rogue River National Forest, at culvert on Forest Service road 405, 1.3 miles upstream from mouth, and 4 miles southwest of McKee Bridge.	2.83	1965-77	5-22-77	8.19	14
		HUNTER CREEK BASIN					
14378550	HUNTER CREEK NEAR GOLD BEACH, OR (Station discontinued)	Lat 42°24'25", long 124°15'05", in NW¼ sec.4 (unsurveyed), T.37 S., R.13 W., Curry County, in Siskiyou National Forest, at culvert on Forest Service road 368, 8.5 miles east of Gold Beach.	.98	1965-77	3- 8-77	9.09	146
		RANSOM CREEK BASIN					
14378900	RANSON CREEK NEAR BROOKINGS, OR (Station discontinued)	Lat 42°03'45", long 124°18'00", in NE¼ sec.1, T.41 S., R.14 W., Curry County, at culvert on U.S. Highway 101, 0.1 mile upstream from mouth, and 1.2 miles northwest of Brookings.	.74	1953-77	3- 7-77	23.16	29

a Approximately.
b Estimated.
c Maximum observed.

Measurements of streamflow at point, other than gaging stations or partial-record stations are given in the following table. Those that are measurements of base flow are designated by an asterick (*), measurements of peak flow a (†).

Discharge measurements at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Part 10		SILVIES RIVER BASIN				
East Fork Silvies River	Malheur Lake	SW¼ sec.5 T.25 S., R.32½ E.	Indeterminate	-	10-20-76	0
					12- 1-76	3.90
					12-22-76	.24
					1- 6-77	0
					1-24-77	0
					2- 9-77	0
					2-16-77	0
					3- 9-77	0
					3-22-77	0
					4- 7-77	0
					5- 5-77	0
					5-31-77	0
					7- 5-77	0
					8- 3-77	0
					9- 8-77	0
West Fork Silvies River	.....do.....	SE¼SW¼ sec.24, T.25 S., R.32 E.	Indeterminate	-	10-20-76	3.81
					12- 1-76	0
					1- 3-77	0
					1- 6-77	0
					1-24-77	0
					2- 9-77	0
					2-16-77	0
					3- 9-77	4.20
					4- 7-77	0
					5- 4-77	0
					7- 5-77	0
					8- 3-77	0
		MALHEUR AND HARNEY LAKES BASIN				
Malheur Slough	.....do.....	NW¼SE¼ sec.31, T.24 S., R.33 E.	-	-	3-11-72	0
					3-18-72	.49
					3-31-72	0
					4-19-72	0
					5- 3-72	0
					6-27-72	0
					1-10-73	0
					3- 6-73	.10
					3-20-73	.01
					4- 4-73	0
					4-18-73	0
					5- 1-73	0
					5-15-73	0
					9-25-73	0
					1-16-74	9.03
					11-14-74	0
					12-17-74	0
					1-17-75	0
					3-13-75	.39
					4-23-75	.10
					6-10-75	0
					7- 1-75	0
					7-17-75	0
					8-27-75	0
					11-19-75	0
					12-10-75	0
					1- 8-76	0
					1-27-76	0
					2-11-76	0
					3-11-76	1.23
					3-17-76	.29
					5- 6-76	0
					6-16-76	0
					7-29-76	0
					9- 9-76	0
					10- 5-76	0
					10-20-76	0
					12- 1-76	0
					12-20-76	0

Discharge measurements at miscellaneous sites during water year 1977--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Part 10		MALHEUR AND HARNEY LAKES BASIN--Continued				
Malheur Slough (Continued)	Malheur Lake	NW¼SE¼ sec.31, T.24 S., R.33 E.	-	-	1- 6-77	0
					1-24-77	0
					2- 9-77	0
					2-16-77	0
					3- 9-77	0
					3-22-77	.80
					4- 7-77	.01
					5- 4-77	0
					5-31-77	0
					7- 5-77	0
					8- 3-77	0
					9- 8-77	0
Sodhouse Spring	.....do.....	NE¼SW¼ sec.35., T.27 S., R.31 E.	-	-	10- 6-62	*11.0
					7-10-73	*11.0
					7-24-73	*14.6
					8- 8-73	18.4
					10- 4-73	*12.1
					10-16-73	*12.0
Little Blitzen River	Donner Und Blitzen River	SW¼ sec.32, T.33 S., R.32 3/4 E.	-	-	9-13-77	*1.74
Bridge Creek	Mud Creek	NW¼ sec.33, T.31 S., R.32 E.	a30	1911-16‡ 1930‡, 1937-70‡	8-10-77	*9.18
Krumbo Creek	Donner Und Blitzen River	SW¼ sec.20, T.30 S., R.32 E.	a35	-	8-10-77	0
Kiger Creek	.....do.....	NE¼ sec.10, T.30 S., R.33 E.	a75	-	8-10-77	*4.90
McCoy Creek	.....do.....	SE¼ sec.2, T.30 S., R.32 E.	a45	-	8-14-63	*2.31
Part 11		KLAMATH RIVER BASIN				
North Junction Spring	Crater Lake	Lat 42°57'54", long 122°09'10"	-	1967-68	9- 8-77	0
Bear Creek	Klamath Marsh	Lat 42°58'15", long 122°00'20".	-	1967-68	8-11-77	.05
.....do.....	.....do.....	Lat 42°58'15", long 122°00'10".	-	1967-68	8-11-77	0
Boundary Springs	Rogue River	Lat 43°03'55", long 122°13'55".	-	1967-68	8-12-77	27.4
Big Springs Creek	Williamson River in Klamath Marsh	SE¼ sec.22, T.30 S., R.8 E.	a80	1915-27, 1930, 1949-54, 1956-57, 1959-62, 1964-71, 1973, 1975	6-16-77	*37.2
					8- 9-77	*36.2
Williamson River	Upper Klamath Lake	NW¼ sec.2, T.34 S., R.7 E.	a1,330	1912 13‡, 1917-25‡, 1942, 1949-54, 1956, 1959-62, 1964-71, 1973	8-24-77	*22.6
Larkin Creek	Williamson River	SW¼ sec.11, T.34 S., R.7 E.	(b)	1924-25, 1950-53, 1956, 1957-62, 1964-71, 1973	8-25-77	*14.8
Shakespeare Creek	.....do.....	SE¼SE¼ sec.10, T.34 S., R.7 E.	(b)	1964-71, 1973	8-25-77	*9.7
Spring Creek	.....do.....	NE¼ sec.9, T.34 S., R.7 E.	21.0	1905, 1914-17, 1919-20, 1922-29, 1931-34, 1949-54, 1956, 1959-62, 1964-71, 1973	8-23-77	*293

Discharge measurements at miscellaneous sites during water year 1977--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Part 10		KLAMATH RIVER--Continued				
Fivemile Creek	North Fork	NE¼ sec.34, T.35 S., R.13 E.	a40	1917-21‡, 1922-23, 1925-26, 1949-54, 1956, 1959-71, 1975	9- 7-77	*18.0
Medicine Springs	Sprague River	SE¼NE¼ sec.13, T.36 S., R.12 E.	(b)	1966-71, 1975	9- 7-77	*16.6
Sycan River	.....do.....	SE¼ sec.8, T.35 E., R.12 E.	a540	1912-14, 1915-25‡, 1926, 1949-54, 1956, 1959-71, 1973, 1975	9- 7-77	*7.85
Kamkaun Springs	.....do.....	SE¼SE¼ sec.25, T.34 S., R.8 E.	(b)	1949, 1951-54, 1956, 1959-62, 1964-71, 1973, 1975	9- 8-77	*42.3
Wood River Springs	Wood River	SE¼ sec.3, T.33 S., R.7½ E.	(b)	1956, 1959-71, 1973	8-26-77	*133
Wood River	Agency Lake	NW¼ sec.22, T.33 S., R.7½ E.	a90	1904-10, 1911-36‡, 1949-71	8-26-77	*131
Fort Creek	Wood River	SW¼ sec.26, T.33 S., R.7½ E.	(b)	1906-11, 1915-18, 1920-21, 1923-25, 1927-29, 1931, 1949-53, 1955-56, 1959-71, 1973	8-26-77	*65.4
Crooked Creek	Agency Lake	SE¼ sec.13, T.34 S., R.7½ E.	-	1905-09, 1915-18, 1920-21, 1923-24, 1928, 1949-50, 1952-53, 1956, 1959-65, 1965-67‡, 1973	8-26-77	*74.1
Spencer Creek	Klamath River	SW¼ sec.20, T.39 S., R.7 E.	a90	1927, 1929-32‡, 1934, 1949-53, 1955-56, 1959-71, 1973	8-22-77	*6.2
Jenny Creek	Klamath Lake	NW¼ sec.35, T.48 N., R.5 W.	211	1922-28	8-29-77	*12.7
Munson Springs	Munson Creek	Lat 42°54'20", long 122°08'00".	-	1967-68	8-12-77	*.08
Headquarter Spring	.....do.....	Lat 42°54'10", long 122°08'10".	-	1967-68	8-12-77	*.05
Unnamed Tributary	.....do.....	Lat 42°53'38", long 122°07'45"	-	1967-68	8-12-77	*1.26

Discharge measurements at miscellaneous sites during water year 1977--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Part 11		KLAMATH RIVER BASIN--Continued				
Munson Creek	Annie Creek	Lat 42°52'45", long 122°08'15".	-	1967-68	6-14-77 7-12-77 8-11-77	*6.37 *3.26 *2.28
Annie Creek	Wood River	Lat 42°46'00", long 122°03'20".	-	1967-68	6-16-77 7-13-77 8-12-77	*48.1 *38.0 *36.2
Sun Creek	Annie Creek	Lat 42°48'55", long 122°02'05".	-	1967-68	8-11-77	*8.66
Part 13		OWYHEE RIVER BASIN				
Crooked Creek	Owyhee River	Sec.6, T.32 S., R.41 E.	1,700	1949-52‡	9- 9-77	22.9
Part 13		MALHEUR RIVER BASIN				
Malheur River	Snake River	NE¼SE¼ sec.5, T.20 S., R.34 E.	-	-	9- 8-77	3.35
South Fork Malheur River	Malheur River	Sec.35, T.24 S., R.36 E.	-	-	10- 5-77	0
.....do.....	.....do.....	T.23 S., R.37 E.	-	-	9- 8-77	2.42
Part 13		IMNAHA RIVER BASIN				
Imnaha River	Snake River	NW¼ sec.31, T.4 S., R.48 E.	99.6	1944-53‡	8- 8-77	*53.4
Little Sheep Creek	Big Sheep Creek	SE¼ sec.31, T.1 N., R.48 E.	-	-	8-11-77	11.2
Part 13		GRANDE RONDE RIVER BASIN				
Indian Creek	Grande Ronde River	S½ sec.33, T.1 S., R.40 E.	a22	1938-50‡	8-19-77	*3.32
Lookingglass Creek	.....do.....	SW¼ sec.29, T.3 N., R.40 E.	-	-	8-11-77	*51.3
Wallowa River	.....do.....	SE¼ sec.20, T.3 S., R.45 E.	-	-	8-11-77	*36.4
Wenaha River	.....do.....	NW¼ sec.4, T.5 N., R.43 E.	-	-	8-10-77	*141
Chesnimnus Creek	Joseph Creek	SE¼ sec.26, T.3 N., R.45 E.	-	-	8-10-77	*2.08
Part 14		UMATILLA RIVER BASIN				
Line Creek	Meacham Creek	SE¼ sec.18, T.2 N., R.36 E.	-	-	8-25-77	*0.11
Boston Creek	.....do.....	NW¼ sec.6, T.2 N., R.26 E.	-	-	8-25-77	*1.47
Eagle Creek	Wildhorse Creek	SE¼ sec.4, T.3 N., R.35 E.	-	-	8-25-77	1.47
Umatilla River	Columbia River	NW¼ sec.4, T.2 N., R.35 E.	-	-	8-25-77	51.0
Part 14		JOHN DAY RIVER BASIN				
South Fork John Day River	John Day River	SW¼ sec.29, T.17 S., R.28 E.	-	-	8-17-77	0
Pine Creek	South Fork John Day River	NW¼ sec.9, T.17 S., R.27 E.	-	-	8-17-77	*.26
Deer Creek	.....do.....	SE¼ sec.12, T.16 S., R.27 E.	-	-	8-17-77	0
South Fork John Day River	John Day River	SE¼ sec.26, T.14 S., R.26 E.	-	-	8-17-77	*1.66
Tex Creek	Murderers Creek	SW¼ sec.18, T.15 S., R.29 E.	-	-	8-17-77	0

Discharge measurements at miscellaneous sites during water year 1977—Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Part 14		JOHN DAY RIVER BASIN—Continued				
Murders Creek	South Fork John Day River	SW¼ sec.18, T.15 S., R.29 E.	-	-	8-17-77	*.26
.....do.....	.....do.....	NE¼ sec.36, T.14 S., R.26 E.	-	-	8-17-77	*.97
South Fork John Day River	John Day River	Sec.35, T.14 S., R.26 E.	-	-	8-17-77	*3.35
Black Canyon Creek	South Fork John Day River	Sec.26, T.14 S., R.26 E.	-	-	8-17-77	*5.31
Desolation Creek	North Fork John Day River	W½ sec.6, T.7 S., R.32 E.	108	1949-58‡	8-16-77	*7.78
North Fork John Day River	John Day River	SW¼ sec.35, T.6 S., R.31 E.	525	1929-58‡	8-16-77	*50.2
Camas Creek	North Fork John Day River	SW¼ sec.33, T.4 S., R.33 E.	60.7	1950-70‡	8-16-77	*.98
Cable Creek	Camas Creek	NW¼ sec.10, T.5 S., R.32 E.	a39	1914-17, 1919-24, 1932-37	8-16-77	*1.18
Wall Creek	North Fork John Day River	NE¼ sec.18, T.10 S., R.28 E.	-	-	8-16-77	0
Part 14		DESCHUTES RIVER BASIN				
Deschutes River	Columbia River	SE¼SE¼ sec.20, T.21 S., R.8 E.	-	1938-49‡, 1950, 1952-57, 1960-76	10-22-76 12- 2-76 12-28-76 2- 9-77 3-31-77 5- 5-77 6- 3-77 6-28-77 7-26-77 8-31-77	b623 b464 b464 b314 b270 b654 b459 b535 b689 b516
Metolius River	Deschutes River	NW¼SW¼ sec.2, T.12 S., R.9 E.	163	1972-74	8-30-77	*1,190
Jefferson Creek	Metolius River	SW¼SE¼ sec.34, T.11 S., R.9 E.	27.8	1972-74	8-30-77	*63.7
Whitewater River	.....do.....	SE¼SW¼ sec.21, T.10 S., R.10 E., (station 14090500).	30.6	1911-14‡, 1972-74	8-30-77	118
Seekseequa Creek	Deschutes River	SE¼NW¼ sec.27, T.10 S., R.12 E.	47.3	1972-74	8-31-77	*1.02
Warm Springs River	.....do.....	NE¼NE¼ sec.18, T.7 S., R.11 E., (station 14095500).	107	1915-16, 1948-54‡, 1972-74	9- 1-77	107
Badger Creek	Warm Springs River	NE¼SW¼ sec.20, T.7 S., R.11 E.	37.2	1972-74	9- 1-77	*7.52
Beaver Creek	.....do.....	NE¼SW¼ sec.14, T.7 S., R.11 E.	115	1972-74	8-29-77	*37.3
Buck Springs	.....do.....	Lat 44°50'44", long 121°19'32".	-	1973-74	8-31-77	*.75
White River	Deschutes River	SW¼NE¼ sec.11, T.5 S., R.10 E., (station 14099000).	115	1941-50‡	9- 1-77	70.5
Dog River	Hood River	Lat 45°24'30", long 121°31'10", (station 14113400).	4.50	1959-71‡	9- 1-77	*1.28

Discharge measurements at miscellaneous sites during water year 1977—Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Part 14		WILLAMETTE RIVER BASIN				
Salt Creek	Middle Fork Willamette River	SW¼ sec.23, T.21 S., R.3 E.	113	1913-14, 1933-51‡	8-10-77	*86.6
Little Fall Creek	Fall Creek	Sec.25, T.18 S., R.1 W.	52.5	1935-48‡	8-10-77	*13.6
Horse Creek	McKenzie River	SW¼ sec.24, T.16 S., R.5 E.	-	-	8-11-77	*24.0
Seperation Creek	Horse Creek	Sec.1, T.17 S., R.6 E.	-	1973	8-11-77	236
French Pete Creek	South Fork McKenzie River	Lat 44°02'32", long 122°11'40" (unsurveyed).	31.2	1970-76	8- 9-77	*13.5
Quartz Creek	McKenzie River	SE¼NW¼ sec.6, T.17 S., R.4 E.	-	1964-65, 1973	8- 9-77	*10.1
North Fork Rock Creek	Rock Creek	NE¼ sec.14, T.12 S., R.7 W.	-	1973, 1975-76	5-16-77 7- 6-77 8-16-77	*5.73 *2.37 *1.23
South Fork Rock Creek	.....do.....	SE¼ sec.14, T.12 S., R.7 W.	-	1973, 1975-76	5-18-77 7- 6-77 8-16-77	*9.57 *6.06 *2.15
Stillson Creek	.....do.....	SE¼ sec.13, T.12 S., R.7 W.	-	1973, 1975-76	5-18-77 7- 6-77 8-16-77	*.39 *.28 *.17
Middle Fork Rock Creek	.....do.....	SE¼ sec.19, T.12 S., R.6 W.	-	1973, 1975-76	5-18-77 7- 6-77 8-16-77	*1.09 *.58 *.29
Griffith Creek	.....do.....	SE¼NW¼ sec.30, T.12 S., R.6 W.	-	1973, 1975-76	5-16-77 7- 6-77 8-16-77	*2.25 *1.04 *.77
Little North Santiam River	North Santiam River	SW¼NW¼ sec.22, T.8 S., R.4 E.	53.1	1973-76	12- 6-76 2-16-77 5-12-77 7-12-77 9-20-77	*44.1 *77.4 485 *38.8 274
Marion Forks Creek	.....do.....	SE¼NW¼ sec.22, T.11 S., R.7 E.	-	1973	9-15-77	*79.1
Breitenbush River	.....do.....	NW¼ sec.25, T.9 S., R.8 E.	-	1973	9-12-77	*102
Rock Creek	South Yamhill River	NE¼SE¼ sec.14, T.6 S., R.8 W.	-	-	9-14-77	*11.0
Coast Creek	Willamina Creek	NE¼NW¼ sec.12, T.5 S., R.7 W.	-	-	8-18-77	*3.46
East Fork Dairy Creek	Dairy Creek	SE¼SW¼ sec.9, T.1 N., R.3 W.	65.5	1967, 1973-76	9-16-77	*6.04
Rock Creek	Tualatin River	SW¼NW¼ sec.9, T.1 S., R.2 W.	74.0	1973-76	9-15-77	*13.7
Fanno Creek	.....do.....	NE¼NW¼ sec.13, T.2 S., R.1 W.	31.5	1967, 1973-76	9-15-77	*1.84
Crystal Springs Creek	Johnson Creek	Lat 45°28'44", long 122°38'18", in SW¼SW¼ sec.13, T.1 S., R.1 E.	-	-	9-26-77	12.5
Unnamed Spring	Columbia River	Lat 45°32'27", long 122°23'34", in SE¼NE¼ sec.26, T.1 N., R.3 E.	-	-	9-26-77	.14
Part 14		TRASK RIVER BASIN				
E.F. Trask River	S.F. Trask River	SE¼SE¼ sec.1, T.2 S., R.8 W.	-	-	8-15-77	*17.1
N.F. Trask River	Trask River	SE¼SE¼ sec.25, T.1 S., R.8 W.	-	-	8-15-77	*39.4
Trask River	Pacific Ocean	NW¼NW¼ sec.31, T.1 S., R.8 W.	145	1932-55‡ 1963-72‡	8-15-77	*69.2

Discharge measurements at miscellaneous sites during water year 1977--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Part 14		SALMON RIVER BASIN				
Salmon River	Pacific Ocean	NE¼SW¼ sec.29, T.6 S., R.10 W.	60.4	1931-32, 1934-37, 1949, 1951-52, 1973-74	8-15-77	*33.2
Part 14		SILETZ RIVER BASIN				
Euchre Creek	Siletz River	NW¼NW¼ sec.22, T.9 S., R.10 W.	13.4	1924, 1926, 1935, 1973-74	8-16-77	*13.4
Part 14		NORTH-MID COAST BASINS				
Fogarty Creek	Pacific Ocean	NE¼NE¼ sec.32, T.8 S., R.11 W.	5.20	1931, 1934-36 1973-74	8-16-77	*.90
South Depoe Bay Creek	.....do.....	SW¼NE¼ sec.8, T.9 S., R.11 W.	3.98	1972-73	8-16-77	*1.00
Rocky Creek	.....do.....	SW¼NE¼ sec.19, T.9 S., R.11 W.	5.36	1931, 1934-37, 1949, 1952-57, 1973-74	8-16-77	*1.78
Spencer Creek	.....do.....	NW¼SW¼ sec.4, T.10 S., R.11 W.	5.51	1931, 1934-37, 1973-74	8-16-77	*1.67
Moloch Creek	.....do.....	NW¼SE¼ sec.17, T.10 S., R.11 W.	2.23	1931, 1934-37, 1973-74	8-16-77	*.78
Elk Creek	Yaquina River	SE¼NW¼ sec.24, T.11 S., R.10 W.	85.0	1932, 1934, 1937, 1949, 1951-52, 1973-74	8-17-77	*8.40
Theil Creek	Pacific Ocean	NW¼NE¼ sec.6, T.12 S., R.11 W.	4.10	1931, 1934-37, 1973-74	8-17-77	*1.02
N.F. Beaver Creek	Beaver Creek	NW¼SW¼ sec.22, T.12 S., R.11 W.	14.3	1973-74	8-17-77	*7.23
Part 14		ALSEA RIVER BASIN				
Fall Creek	Alsea River	SE¼NE¼ sec.35, T.13 S., R.9 W.	29.4	1959-63[a], 1973	8-17-77	*13.6
Drift Creek	.....do.....	NE¼ sec.24, T.12 S., R.10 W.	20.5	1959-63[a], 1965-70[a]	8-16-77	*6.36
Needle Branch	Drift Creek	SW¼ sec.24, T.12 S., R.10 W.	.27	1959-73[a]	8-16-77	*.004
Flynn Creek	Meadow Creek	SW¼ sec.12, T.12 S., R.10 W.	.78	1959-73[a], 1973-74	8-16-77	*.14
Deer Creek	Horse Creek	SW¼ sec.11, T.12 S., R.10 W.	1.17	1959-73	8-16-77	*.34
Part 14		CAPE CREEK BASIN				
Cape Creek	Pacific Ocean	SW¼SW¼ sec.1, T.15 S., R.12 W.	-	-	8-15-77	*9.4
Part 14		TENMILE CREEK BASIN				
Tenmile Creek	.....do.....	NE¼ sec.34, T.15 S., R.12 W.	-	-	8-15-77	*11.7
Part 14		BIG CREEK BASIN				
Big Creek	.....do.....	SW¼ sec.15, T.16 S., R.12 W.	-	-	8-15-77	*1.00

Discharge measurements at miscellaneous sites during water year 1977--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Part 14		SIUSLAW RIVER BASIN				
Siuslaw River	Pacific Ocean	NE¼ sec.11, T.20 S., R.6 W.	81.8	1968-75	8- 9-77	*1.51
.....do.....	.....do.....	NE¼ sec.35, T.19 S., R.7 W.	120	1968-75	8- 9-77	*3.36
Esmond Creek	Siuslaw River	NE¼ sec.16, T.19 S., R.8 W.	15.6	1968-75	8- 9-77	*.89
Wolf Creek	.....do.....	NW¼ sec.36, T.18 S., R.8 W.	59.0	1968-75	8-10-77	*5.88
Siuslaw River	Pacific Ocean	SE¼ sec.16, T.18 S., R.8 W.	267	1931-40†	8-10-77	*18.7
Chickahominy Creek	Siuslaw River	SW¼ sec.6, T.18 S., R.7 W.	12.5	1968-75	8-10-77	*.84
Wildcat Creek	.....do.....	NW¼ sec.23, T.18 S., R.8 W.	51.9	1968-75	8-10-77	*3.30
Lake Creek	.....do.....	SW¼ sec.20, T.16 S., R.7 W.	52.5	1931-55† 1968-75	8-11-77	*2.93
Deadwood Creek	.....do.....	SE¼NE¼ sec.10, T.17 S., R.9 W.	57.4	1968-75	8-11-77	*9.5
Indian Creek	.....do.....	NE¼ sec.11, T.17 S., R.10 W.	37.0	1968-75	8-11-77	*13.9
Knowles Creek	.....do.....	NE¼ sec.28, T.18 S., R.10 W.	17.7	1968-75	8-11-77	*.24
Sweet Creek	.....do.....	NW¼ sec.28, T.18 S., R.10 W.	19.8	1968-75	8-11-77	*2.75
Condon Creek	.....do.....	NE¼ sec.33, T.17 S., R.11 W.	9.91	1968-75	8-15-77	*5.60
Part 14		UMPQUA RIVER BASIN				
Middle Creek	West Fork Cow Creek	SW¼ sec.1, T.32 S., R.7 W.	-	-	9-16-77	*1.41
Hansen Creek	Diamond Lake	Lat 43°08'35", long 122°09'45" (unsurveyed) at mouth.	-	1972-76	4-18-77 6-21-77	0 0
Discovery Creek	.....do.....	Lat 43°08'20", long 122°09'40" (unsurveyed) at mouth.	-	1972-76	4-18-77 6-21-77	0 0
Unnamed Creek	.....do.....	Lat 43°08'10", long 122°09'35".	-	-	10- 5-76 11-16-76 5-10-77 5-26-77 6-21-77	0 .03 .02 .01 0
Short Creek	.....do.....	Lat 43°08'20", long 122°08'10" (unsurveyed) at mouth.	(a)	1972-76	10- 5-76 11-15-76 1- 4-77 2-16-77 3-30-77 4-19-77 4-26-77 6-20-77 8-10-77 9-19-77	10.0 9.38 9.22 9.50 10.5 10.2 9.86 9.75 9.48 8.23
Camp Creek	.....do.....	Lat 43°08'35", long 122°08'00" (unsurveyed) at mouth.	-	1972-76	10- 5-76 4-18-77 6-21-77	0 0 0
Dry Creek	.....do.....	Lat 43°08'50", long 122°08'00" (unsurveyed) at mouth.	-	1972-76	4-18-77 6-21-77	0 0
Porcupine Creek	.....do.....	Lat 43°09'45", long 122°08'00" (unsurveyed) at mouth.	-	1972-76	10- 5-76 11-16-76 4-18-77 6-21-77	.02 .02 0 0
Rabbit Creek	.....do.....	Lat 43°09'50", long 122°07'55" (unsurveyed) at mouth.	-	1972-76	10- 5-76 4-18-77 4-26-77 5-10-77 5-26-77 6-21-77	.05 .01 .02 .01 .02 0

Discharge measurements at miscellaneous sites during water year 1977--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Part 14		UMPQUA RIVER BASIN--Continued				
Spruce Creek	Diamond Lake	Lat 43°10'05", long 122°07'55" (unsurveyed) at mouth.	-	1972-76	10- 5-76 4-18-77 6-21-77	.02 0 0
Two Bear Creek	.....do.....	Lat 43°10'35", long 122°08'10" (unsurveyed) at mouth.	-	1972-76	10- 5-76 11-16-76 2-16-77 4-18-77 4-26-77 5-10-77 5-26-77 6-21-77	.15 .13 .06 .05 .05 .05 .04 0
Rock Creek	North Umpqua River	NE¼NE¼ sec.1, T.26 S., R.3 W.	97.6	1957-73[1]	8-10-77	*23.1
Big Tom Foley Creek	Elk Creek	SE¼ sec.3, T.22 S., R.7 W.	-	-	9- 2-77	*.91
Part 14		TENMILE CREEK BASIN				
Eel Creek	Tenmile Creek	NE¼NE¼ sec.13, T.23 S., R.13 W.	11.0	1957-76	8-17-77	*2.29
Part 14		COOS RIVER BASIN				
Tioga Creek	Coos River	SW¼ sec.31, T.25 S., R.9 W.	-	-	8-17-77	*1.51
Part 14		COQUILLE RIVER BASIN				
South Fork Coquille River	Coquille River	SW¼SW¼ sec.18, T.32 S., R.11 W.	-	-	9-22-77	*78.3
Twelvemile Creek	Middle Fork Coquille River	SE¼ sec.10, T.30 S., R.9 W.	-	-	8-18-77	*.02
East Fork Coquille River	.....do.....	SE¼ sec.10, T.28 S., R.11 W.	-	-	8-17-77	*4.02
Elk Creek	.....do.....	SW¼ sec.28, T.28 S., R.11 W.	-	-	8-18-77	*.48
North Fork Coquille River	.....do.....	SE¼ sec.10, T.29 S., R.12 W.	282	-	8-18-77	*11.1
Part 14		ROGUE RIVER BASIN				
Dutton Creek	Castle Creek	Lat 42°53'40", long 122°10'00".	-	1967-68	6-14-77 7-12-77	*.55 *.31
Castle Creek	Rogue River	Lat 42°54'45", long 122°17'00".	-	1967-68	6-14-77 7-12-77	*1.71 *.49
Castle Creek tributary	Castle Creek	Lat 42°53'30", long 122°10'00".	-	1967-68	6-14-77	*.39
.....do.....	.....do.....	Lat 42°53'25", long 122°09'45".	-	1967-68	7-12-77	*.02
Whisky Creek	Unnamed Marsh	Lat 42°53'40", long 122°17'00".	-	1967-68	9-20-77	*.30
Thousand Springs	Union Creek	Lat 42°53'00", long 122°17'00".	-	1967-68	9-20-77	*28.0
Galls Creek	Rogue River	Sec.21, T.36 S., R.3 W.	-	-	8- 8-77	*.05
West Branch Elk Creek	Elk Creek	Lat 42°42'40", long 122°44'55", in SW¼ sec.7, T.33 S., R.1 E.	14.2	1973-76[a]	9-15-77	.55
Elliott Creek	Applegate River	Lat 42°00'16", long 123°09'00", SW¼ sec.17, T.48 N., R.11 W., Calif.	51.8	-	9- 7-77	6.89
Carberry Creek	.....do.....	Lat 42°01'34", long 123°10'10", SE¼ sec.3, T.41 S., R.4 W.	68.9	-	9-16-77	4.23

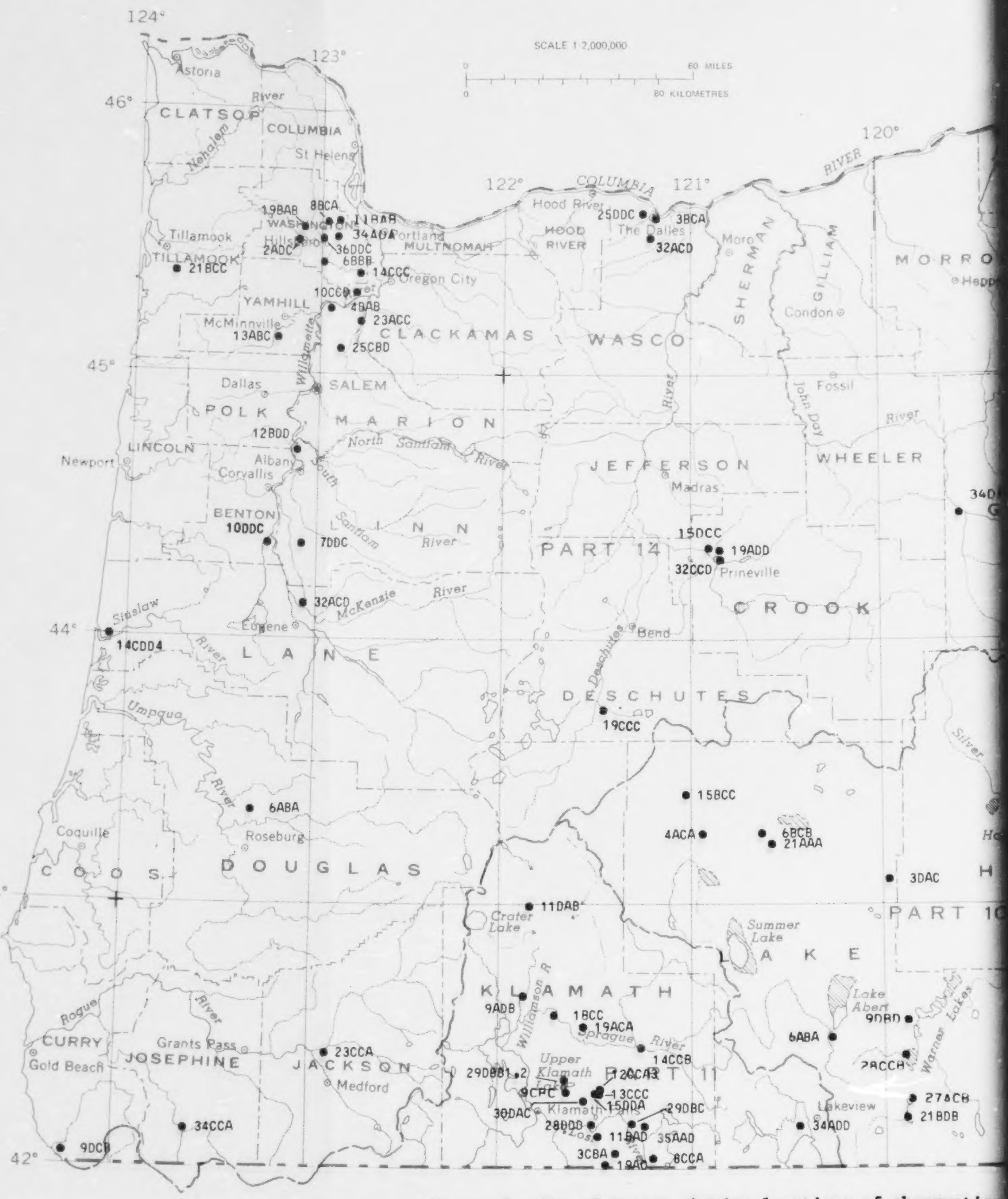
Discharge measurements at miscellaneous sites during water year 1977--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Part 14	ROGUE RIVER BASIN--Continued					
Beaver Creek	Applegate River	NW¼ sec.5, T.40 S., R.3 W.	-	-	9-16-77	*.02
Althouse Creek	Illinois River	SE¼ sec.9, T.40 S., R.7 W.	23.8	1944-53‡	9- 5-77	*6.28
Deer Creek	.....do.....	SW¼NE¼ sec.18, T.38 S., R.6 W.	a23	1941-56‡	9-14-77	*.62
South Fork Pistol River	Pistol River	SE¼ sec.19, T.38 S., R.13 W.	-	-	9-14-77	*3.79
North Fork Chetco River	Chetco River	NW¼ sec.35, T.40 S., R.13 W.	-	-	9-15-77	*1.45

‡ Operated as a continuous record gaging station.

a Springfed.

b Base flow from intervening springs can be obtained by substracting flow of Deschutes River below Crane Prairie Reservoir.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123°
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121°
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46°
45°
44°
43°
42°
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0
80 KILOMETRES
Astoria
River
CLATSOP
COLUMBIA
St Helens
Nehalem
COLUMBIA
RIVER
Hood River
HOOD RIVER
The Dalles
Moro
SHERMAN
GILLIAM
MORRO
Hepp
Condon
WASCO
19BAB
8BCA
11BAB
WASHINGTON
34ADA
Portland
Hillsboro
2ADC
36DDC
MULTNOMAH
Tillamook
TILLAMOOK
21BCC
6BBB
14CCC
Oregon City
10CCD
YAMHILL
4BAB
23ACC
McMinnville
13ABC
CLACKAMAS
25CBD
25DDC
3BCA
32ACD
Dallas
SALEM
Willamette
POLK
MARION
John Day
Fossil
River
12BDD
North Santiam River
Newport
LINCOLN
Albany
Corvallis
South Santiam
JEFFERSON
Madras
WHEELER
BENTON
10DDC
7DDC
LINN
River
PART 14
15DCC
19ADD
32CCD
Prineville
34D
G
Siuslaw
14CDD4
32ACD
McKenzie River
Eugene
Bend
CROOK
River
LANE
Deschutes
River
Umpqua
DESCHUTES
19CCC
Silver
River
6ABA
15BCC
Coquille
Roseburg
4ACA
6BCB
21AAA
COOS
DOUGLAS
3DAC
H
11DAB
Crater Lake
PART 1
Summer Lake
LAKE
KLAMATH
9ADB
Williamson R
1BCC
19ACA
Sprague River
14CCB
Lake Abert
9DBD
Warner Lakes
6ABA
28CCB
Rogue
River
CURRY
Grants Pass
Gold Beach
JOSEPHINE
JACKSON
23CCA
Medford
29DBB1, 2
Upper Klamath Lake
PART 11
12CCA3
9CPC
13CCC
15DDA
30DAC
Klamath Falls
29DBC
28DDD
11BAD
35AAD
Lost River
3CBA
19AC
8CCA
Lakeview
34ADD
27ACB
21BDB
34CCA
9DCB

Figure 5.--Map of Oregon showing locations of observation

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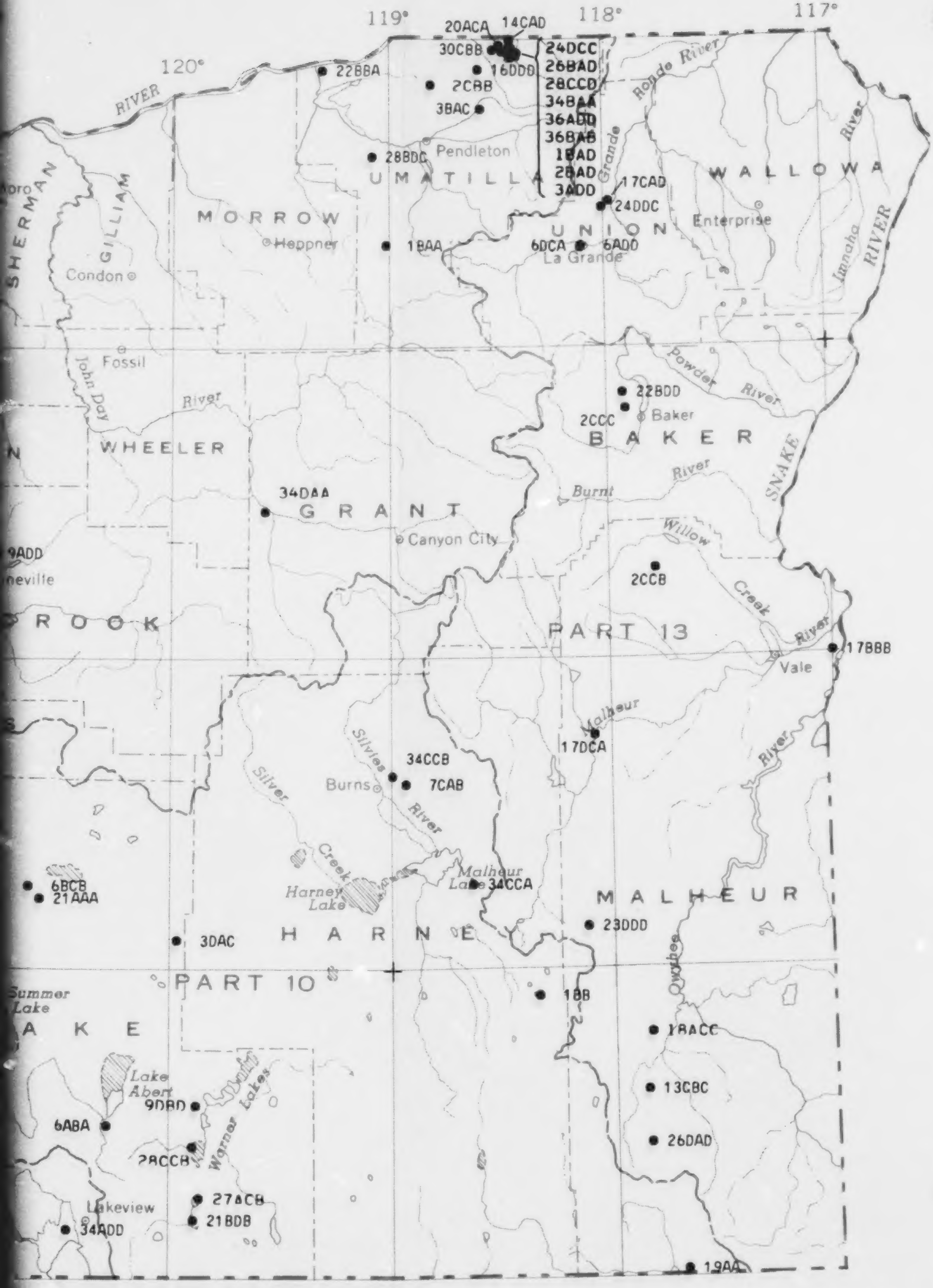
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26BAD
28CCD
34BAA
36ADD
36BAB
1BAD
2BAD
3ADD
22BBA
16DDD
2CBB
3BAC
28BDC
Pendleton
RIVER
Ronde River
Grande
River
UMATILLA
WALLOWA
17CAD
24DDC
Enterprise
UNION
MORROW
Heppner
1BAA
6DCA
6ADD
La Grande
Imnaha
RIVER
SHERMAN
GILLIAM
Condon
Fossil
John Day
River
Powder
River
22BDD
2CCC
Baker
BAKER
WHEELER
SNAKE
Burnt
River
34DAA
GRANT
Canyon City
Willow
Creek
9ADD
neville
2CCB
ROOK
PART 13
River
17BBB
Vale
Malheur
17DCA
River
Silvies
34CCB
Burns
7CAB
River
Silver
Creek
Harney
Lake
Malheur
Lake
34CCA
6BCB
21AAA
MALHEUR
23DDD
3DAC
HARNE
PART 10
Summer
Lake
AKE
1BB
Owyhee
18ACC
Lake
Abert
9DBD
13CBC
6ABA
Warner Lakes
28CCB
26DAD
27ACB
Lakeview
21BDB
34ADD
19AA

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3.P

locations of observation wells.

BAKER COUNTY

445125117551501. Local number, 8S/39E-22bdd.
LOCATION.--Lat 44°51'16", long 117°55'15", Hydrologic Unit 17050203.
Owner: Baker County.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Dug observation well, size 18x18 in (460 x 460 mm), depth 11 ft (3.4 m) cribbed with wood to 9 ft (2.7 m), perforated 12-in (300 mm) steel casing 7-11 ft (2-3 m).
DATUM.--Land surface datum is 3,385.78 ft (1,031.99 m) above mean sea level. Measuring point: Top of 1¼-in (30 mm) pipe, 0.50 ft (0.15 m) above datum.
PERIOD OF RECORD.--1936, 1938 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.52 ft (0.46 m) below datum, Feb. 22, 1973; lowest measured, 9.87 ft (3.01 m) below datum, Sept. 29, 1939.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 5	4.61	FEB 5	4.91	MAY 24	5.95	AUG 9	8.38

444820117543501. Local number 9S/39E-2ccc.
LOCATION.--Lat 44°48'12", long 117°54'33", Hydrologic Unit 17050203.
Owner: Kermit Hansen.
AQUIFER.--Sand and gravel.
WELL CHARACTERISTICS.--Drilled unused well, diam 12 in (300 mm), depth 321 ft (98 m) perforated 0-321 ft (0-98 m).
DATUM.--Altitude of land surface datum is about 3,410 ft (1,039 m). Measuring point: Top of casing, 0.30 ft (0.09 m). above datum.
PERIOD OF RECORD.--1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.37 ft (0.42 m) below datum, Feb. 17, 1965; lowest measured 13.95 ft (4.25 m) below datum, Jan. 20, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 5	11.33	FEB 8	12.36	MAY 24	11.35	AUG 9	12.70

BENTON COUNTY

442145123163201. Local number 14S/5W-10ddc.
LOCATION.--Lat 44°21'45", long 123°16'32", Hydrologic Unit 17090003.
Owner: Chris Lindseth.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Driven unused well, diam 1¼ in (30 mm), depth 19 ft (5.8 m), cased to 19 ft (5.8 m).
DATUM.--Land surface datum is 267.49 ft (81.53 m) above mean sea level. Measuring point: Top of 1¼-in (30 mm) pipe, 2.40 ft (0.73 m) above datum.
PERIOD OF RECORD.--1929-30, 1935-36, 1938 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.21 ft (0.06 m) above datum, Feb. 26, 1936; lowest measured, 16.38 ft (4.99 m) below datum, Sept. 28, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 6	15.43	APR 6	13.95	JUL 11	16.40	SEP 28	16.38
MAR 8	15.09						

CLACKAMAS COUNTY

451905122475801. Local number 3S/1W-10ccd.
LOCATION.--Lat 45°19'05", long 122°47'58", Hydrologic Unit 17090007.
Owner: Pamouskis. Formerly Charles Jenkins.
AQUIFER.--Columbia River Basalt Group.
WELL CHARACTERISTICS.--Drilled domestic well, diam 6 in (150 mm), reported depth 115 ft (35 m).
DATUM.--Altitude of land surface datum is 235 ft (72 m). Measuring point: Top of casing extension, 1.45 ft (0.44 m) above datum.
PERIOD OF RECORD.--1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 68.42 ft (20.85 m) below datum, May 12, 1956; lowest measured 91.26 ft (27.82 m) below datum, Oct. 17, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	88.07	MAR 17	87.18	APR 18	85.95	JUL 18	89.13
JAN 18	87.52						

CROOK COUNTY

442100120541701. Local number 14S/15E-15dcc.
LOCATION.--Lat 44°21'00", long 120°54'48", Hydrologic Unit 17070305.
Owner: Williams. Formerly L.H. McPhetridge.
AQUIFER.--Sand and gravel.
WELL CHARACTERISTICS.--Drilled domestic and stock well, diam 4 in (100 mm), depth 210 ft (64 m).
DATUM.--Land surface datum is 2,846.8 ft (867.7 m) above mean sea level. Measuring point: Center of pressure gage, 6.50 ft (1.98 m) above datum.
PERIOD OF RECORD.--1944 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 75.5 ft (23.0 m) above datum, Mar. 12, 1964; lowest measured, 34.5 ft (10.5 m) above datum, May 13, 1977.

WATER LEVEL, IN FEET ABOVE LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
-	-	FEB 11	41½	MAY 13	34½	AUG 12	46

442029120504801. Local number 14S/16E-19add.
LOCATION.--Lat 44°20'29", long 120°50'48", Hydrologic Unit 17070305.
OWNER: Leslie Clausen.
AQUIFER.--Sandy material.
WELL CHARACTERISTICS.--Drilled domestic well, diam 6 in (150 mm), depth 47 ft (14 m).
DATUM.--Altitude of land surface datum is 2,970 ft (905 m). Measuring point: Top of casing, 1.50 ft (0.46 m) below datum.
PERIOD OF RECORD.--1944, 1947 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.93 ft (0.28 m) below datum, Aug. 13, 1965; lowest measured, 21.22 ft (6.47 m) below datum, Apr. 28, 1961.

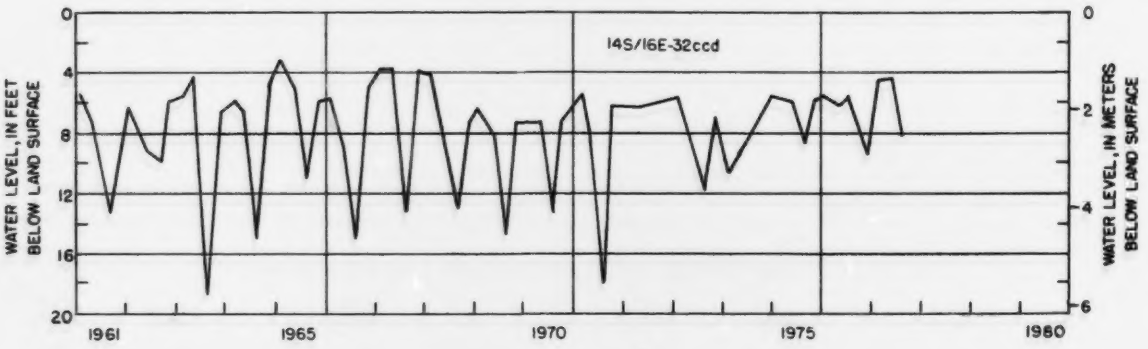
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 13	9.36	-	-	-	-	-	-

441819120503301. Local number 14S/16E-32ccd.
LOCATION.--Lat 44°18'19", long 120°50'33", Hydrologic Unit 17070305.
Owner: Olen Ford. Formerly Roy Fuller.
AQUIFER.--Sand and gravel.
WELL CHARACTERISTICS.--Drilled unused artesian well, diam 5 in (130 mm), depth (160 ft (49 m).
DATUM.--Land surface datum is 2,865.90 ft (873.53 m) above mean sea level. Measuring point: Hole in casing, 1.70 ft (0.52 m) above datum.
REMARKS.--Hydrograph revised for measurements shown in years 1968 and 1975.
PERIOD OF RECORD.--1944 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.82 ft (0.56 m) above datum, Dec. 8, 1945; lowest measured, 21.36 ft (6.51 m) below datum, Aug. 8, 1958.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 30	9.36	FEB 18	4.51	MAY 13	4.24	AUG 12	8.06

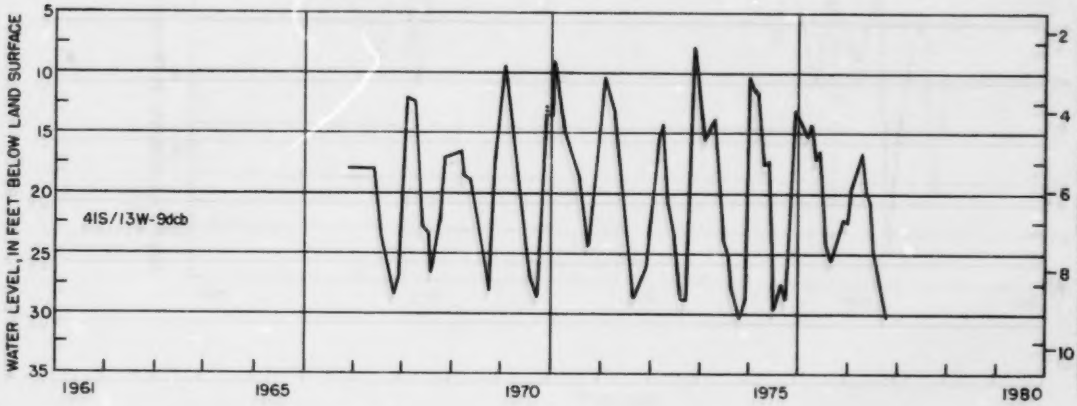


CURRY COUNTY

420205124145501. Local number 41S/13W-9dcb.
LOCATION.--Lat 42°02'05", long 124°14'55", Hydrologic Unit 17100312.
Owner: Minnie Clendenin.
AQUIFER.--Sandstone and gravel.
WELL CHARACTERISTICS.--Drilled irrigation well, diam 10 in (250 mm), depth 59 ft (18 m), cased to 45 ft (14 m), perforated 30-45 ft (9-14 m).
DATUM.--Altitude of land surface datum is unknown. Measuring point: Top of casing 0.9 ft (0.9 m) above datum.
PERIOD OF RECORD.--1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.42 ft (2.26 m) below datum, Jan. 30, 1970; lowest measured, 30.52 ft (9.30 m) below datum, Sept. 28, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 30	22.00	JAN 26	19.16	MAR 28	16.54	JUN 28	24.94
DEC 6	22.42	FEB 23	20.86	APR 26	19.76	SEP 28	30.52
				MAY 24	20.98		



DESCHUTES COUNTY

434400121275001. Local number 21S/11E-19ccc.
LOCATION.--Lat 43°44'01", long 121°27'57", Hydrologic Unit 17070302.
Owner: Inez Kellems.
AQUIFER.--Sand and gravel.
WELL CHARACTERISTICS.--Dug domestic and stock well, diam 6 in (150 mm) depth 100 ft (30 m), cased to 70 ft (21 m).
DATUM.--Altitude of land surface datum is about 4,220 ft (1,286 m). Measuring point: Top of casing, 0.20 ft (0.06 m) above datum.
PERIOD OF RECORD.--1945, 1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.90 ft (3.32 m) below datum, Aug. 14, 1956; lowest measured, 41.63 ft (12.69 m) below datum Oct. 23, 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	17.63	JAN 12	22.95	APR 14	23.86	JUL 6	22.05

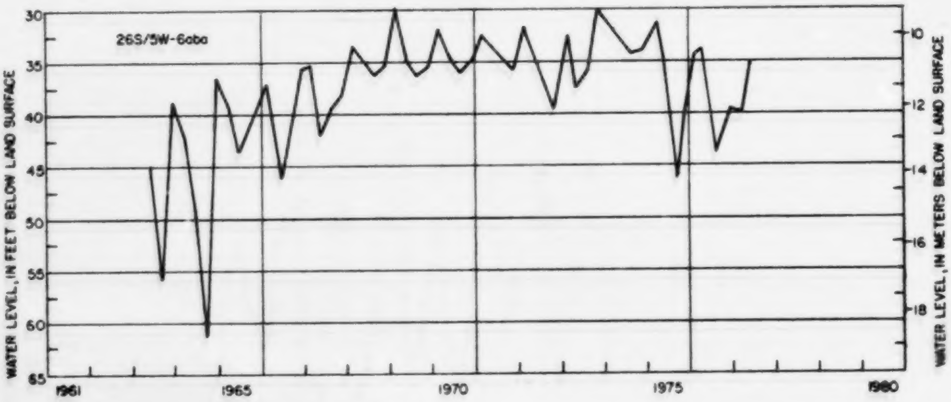
DOUGLAS COUNTY

432051123195601. Local number 26S/5W-6aba.
LOCATION.--Lat 43°20'51", long 123°19'56", Hydrologic Unit 17100301.
Owner: Stanley Mohr.
AQUIFER.--Sandstone and siltstone.
WELL CHARACTERISTICS.--Drilled domestic well, diam 8 in (200 mm), depth 225 ft (69 m), cased to 20 ft (6 m).
DATUM.--Altitude of land surface datum is 580 ft (177 m). Measuring point: Hole in casing seal, 0.7 ft (0.21 m) above datum.
PERIOD OF RECORD.--1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.15 ft (9.19 m) below datum, Feb. 13, 1969; lowest measured b61.19 ft (18.65 m) below datum, Sept. 10, 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 9	39.08	MAR 30	35.64	MAY 19	35.71	AUG 17	44.76
FEB 22	39.64						

b May be affected by recent pumping.



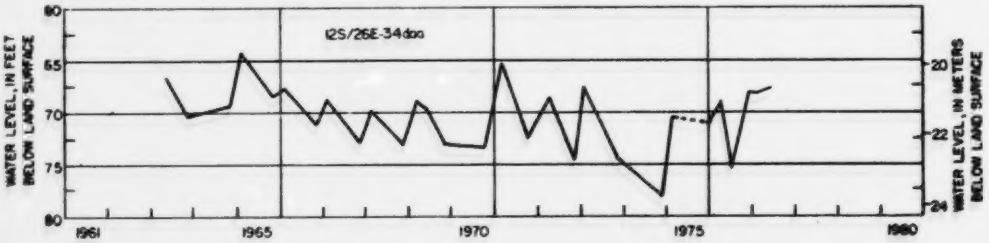
GRANT COUNTY

442845119343001. Local number 12S/26E-34daa.
LOCATION.--Lat 44°28'59", long 119°34'25", Hydrologic Unit 17070201.
Owner: Dayville Cemetery.
AQUIFER.--Tuffaceous sand and gravel.
WELL CHARACTERISTICS.--Drilled irrigation well, diam 6 in (150 mm), depth 477 ft (145 m), cased to 222 ft (68 m), perforated 177-222 ft (54-68 m).
DATUM.--Altitude of land surface datum is about 2,340 ft (713 m). Measuring point: Top hole in casing seal 1.50 ft (0.5 m) below datum.
PERIOD OF RECORD.--1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 64.33 ft (19.61 m) below datum, Feb. 19, 1965; lowest measured 78.14 ft (23.82 m) below datum, Nov. 15, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 8	68.30	FEB 18	68.20	MAY 13	67.60	AUG 12	a

a Well being pumped.



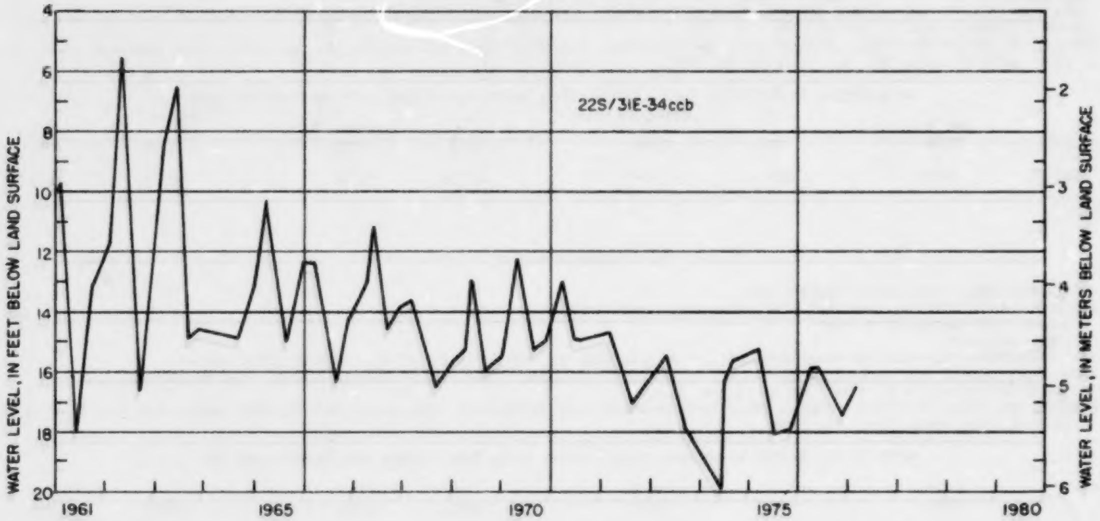
HARNEY COUNTY

433701118595401. Local number 22S/31E-34ccb.
LOCATION.--Lat 43°37'01", long 118°59'54", Hydrologic Unit 17120001.
Owner: Jay Hoyt.
AQUIFER.--Volcanic or sedimentary rock.
WELL CHARACTERISTICS.--Drilled stock well, diam 18 to 8 in (460 to 200 mm), depth 288 ft (88 m), cased to 68 ft (21 m).
DATUM.--Land surface datum is 4,153.17 ft (1,265.89 m) above mean sea level. Measuring point: Top of well cover, 1.00 ft (0.30 m) above datum.
REMARKS.--Hydrograph revised for measurements shown from 1970 through 1975.
PERIOD OF RECORD.--1936 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.50 ft (0.46 m) below datum, Apr. 21, 1936; lowest measured, 19.82 ft (6.04 m) below datum, June 6, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 17	17.43	MAR 3	16.57	MAY 26	b25.89	AUG 24	a

a Well being pumped.
b May be affected by recent pumping.



433527118560502. Local number 23S/32E-7cab.
LOCATION.--Lat 43°35'27", long 118°56'05", Hydrologic Unit 17120001.
Owner: Dorland Ray.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation well, diam 18 in (460 mm), depth 93 ft (28 m), cased to 60 ft (18 m).
DATUM.--Land surface datum is 4,135.24 ft (1,260.42 m) above mean sea level. Measuring point: Top of casing, 0.36 ft (0.11 m) below datum.
PERIOD OF RECORD.--1928 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.07 ft (0.63 m) below datum, May 19, 1965; lowest measured, 38.37 ft (11.70 m) below datum, July 30, 1931.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 17	9.60	MAR 3	7.78	MAY 26	18.31	AUG 25	a

a Well being pumped.

HARNEY COUNTY

431551118381001. Local number 26S/33E-34cca.
LOCATION.--Lat 43°15'51", long 118°38'10", Hydrologic Unit 17120001.
Owner: Davis Farms.
AQUIFER.--Cinders.
WELL CHARACTERISTICS.--Drilled irrigation well, diam 14 in (350 mm), depth 81 ft (25 m), cased to 30 ft (9 m).
DATUM.--Altitude of land surface datum is 4,120 ft (1,256 m). Measuring point: Top of casing, 0.50 ft (0.15 m) above datum.
PERIOD OF RECORD.--1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.66 ft (5.99 m) below datum, Dec. 2, 1965; lowest measured, 22.10 ft (6.74 m) below datum, Mar. 9, 1967.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 15	23.60	MAR 18	19.90	-	-	SEP 15	21.20

425400118205001. Local number 31S/35E-1bb.
LOCATION.--Lat 42°54'00", long 118°20'50", Hydrologic Unit 17120009.
Owner: Fred Pallock.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled domestic well, diam 8 in (200 mm), depth 32 ft (10 m).
DATUM.--Altitude of land surface datum is 4,270 ft (1,302 m). Measuring point: Top of casing, 0.50 ft (0.15 m) above datum.
PERIOD OF RECORD.--1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.35 ft (0.72 m) below datum, Aug. 20, 1975; lowest measured, 18.12 ft (5.52 m) below datum, Nov. 20, 1963, May 21, 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

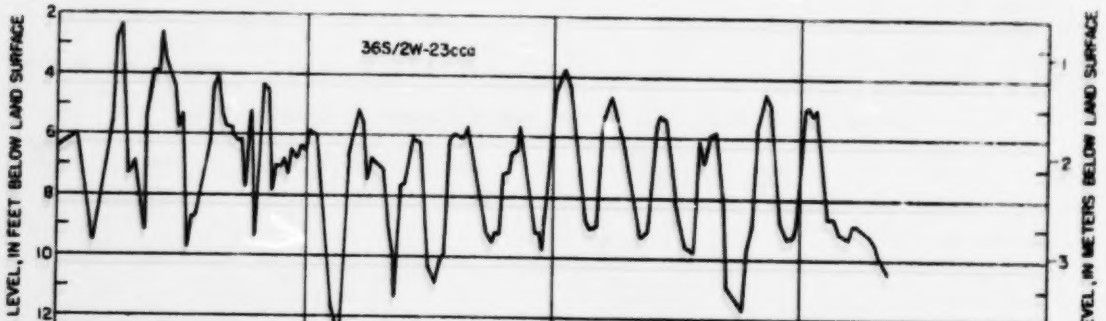
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 17	7.25	MAR 2	7.45	MAY 25	8.04	AUG 24	9.22

JACKSON COUNTY

422517122543401. Local number 36S/2W-23cca.
LOCATION.--Lat 42°25'17", long 122°54'34", Hydrologic Unit 17100308.
Owner: U.S. Geological Survey.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled observation well, diam 8 in (200 mm), depth 110 ft (33 m), cased to 106 ft (32 m).
DATUM.--Altitude of land surface datum is 1,230 ft (375 m). Measuring point: Top of casing, 2.00 ft (0.61 m) above datum.
PERIOD OF RECORD.--1953-54, 1956, 1958 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.27 ft (0.69 m) below datum, Mar. 5, 1962; lowest measured, 12.47 ft (3.80 m) below datum, Sept. 23, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	9.13	JAN 20	9.12	APR 20	9.06	JUL 21	9.99
NOV 19	9.19	FEB 22	8.99	MAY 20	9.19	AUG 22	10.27
DEC 20	9.24	MAR 18	8.86	JUN 20	9.38	SEP 20	10.51



JOSEPHINE COUNTY

420756123380201. Local number 39S/7W-34caa.
LOCATION.--Lat 42°07'56", long 123°38'02", Hydrologic Unit 17100311.
Owner: U.S. Geological Survey.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled observation well, diam 6 in (150 mm), depth 114 ft (35 m), cased to 114 ft (35 m), perforated 27-45 ft (8-14 m), 84-110 ft (?) (26-34 m).
DATUM.--Altitude of land surface datum is 1,350 ft (411 m). Measuring point: Top of casing, 2.00 ft (0.61 m) above datum.
REMARKS.--Well obstructed by rocks, no water level information available for 1977 water year.
PERIOD OF RECORD.--1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.54 ft (1.08 m) below datum, Jan. 27, 1954; lowest measured, 24.88 ft (7.58 m) below datum, Jan. 18, 1960.

KLAMATH COUNTY

425908121505501. Local number 30S/7E-11dab.
LOCATION.--Lat 42°59'08", long 121°50'55", Hydrologic Unit 18010201.
Owner: Crown Zellerbach Corp.
WELL CHARACTERISTICS.--Drilled industrial well, diam 6 in (150 mm), depth 123 ft (37 m).
DATUM.--Altitude of land surface datum is 4,610 ft (1,405 m). Measuring point: Top of casing, 0.40 ft (0.12 m) above datum.
PERIOD OF RECORD.--1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 48.98 ft (14.93 m) below datum, July 26, 1974; lowest measured, 76.61 ft (23.35 m) below datum, Nov. 4, 1970.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	65.43	-	-	-	-	JUL 29	71.28

423832121524801. Local number 34S/7E-9adb.
LOCATION.--Lat 42°38'32", long 121°52'48", Hydrologic Unit 18010201.
Owner: State of Oregon.
AQUIFER.--Basalt.
WELL CHARACTERISTICS.--Drilled domestic well, diam 6 in (150 mm), depth 221 ft (67 m), cased to 43 ft (13 m).
DATUM.--Altitude of land surface datum is 4,220 ft (1,286 m). Measuring point: Bolt above top of casing, 4.86 ft (1.48 m) below datum.
PERIOD OF RECORD.--1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.49 ft (5.64 m) below datum, Jan. 31, 1975; lowest measured, 26.87 ft (8.19 m) below datum, Apr. 30, 1976

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	19.42	JAN 28	19.35	APR 28	19.80	-	-

423408121430901. Local number 35S/8E-1bcc.
LOCATION.--Lat 42°34'08", long 121°43'09", Hydrologic Unit 18010202.
Owner: H.G. Wolff.
WELL CHARACTERISTICS.--Drilled domestic well, diam 6 in (150 mm), depth 102 ft (31 m).
DATUM.--Altitude of land surface datum is 4,305 ft (1,312 m). Measuring point: Top of casing 0.50 ft (0.15 m) above datum.
PERIOD OF RECORD.--1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.45 ft (0.44 m) below datum, Apr. 8, 1956; lowest measured, 17.00 ft (5.18 m) below datum, July 27, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	10.67	-	-	APR 27	11.72	JUL 27	17.00

KLAMATH COUNTY--Continued

423131121340801. Local number 35S/10E-19aca.

LOCATION.--Lat 42°31'31", long 121°34'08", Hydrologic Unit 18010202.

Owner: Wolf Butte Ranch.

AQUIFER.--Volcanic rock.

WELL CHARACTERISTICS.--Drilled domestic well, diam, 6 in (150 mm), depth 360 ft (110 m), cased to 70 ft (21 m).

DATUM.--Altitude of land surface datum is 4,300 ft (1,311 m). Measuring point: Top of casing, 0.50 ft (0.15 m), above datum.

PERIOD OF RECORD.--1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.98 ft (2.13 m) below datum, Apr. 18, 1956; lowest measured, 40.72 ft (12.41 m) below datum, July 24, 1968.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	23.70	JAN 26	25.55	APR 27	21.48	JUL 27	10.24

422642121160901. Local number 36S/12E-14ccb.

LOCATION.--Lat 42°26'42", long 121°16'09", Hydrologic Unit 18010202.

Owner: Jim Godowa.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Drilled unused well, diam 6 in (150 mm), depth 48 ft (15 m).

DATUM.--Altitude of land surface datum is 4,345 ft (1,324 m). Measuring point: Top of casing, 1.50 ft (0.46 m) below datum.

PERIOD OF RECORD.--1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.71 ft (0.22 m) below datum, July 17, 1973; lowest measured, 6.64 ft (2.02 m) below datum, Aug. 26, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10	2.67	JAN 26	2.30	APR 27	2.97	JUL 27	3.92

421920121400002. Local number 37S/10E-29dbb1.

LOCATION.--Lat 42°19'20", long 121°40'00", Hydrologic Unit 180102004.

Owner: Edgewood Ranch. Formerly Don Roberts.

AQUIFER.--Sedimentary rocks.

WELL CHARACTERISTICS.--Drilled stock well, diam 10 in (250 mm), depth 100 ft (30 m).

DATUM.--Altitude of land surface datum is 4,187 ft (1,276 m). Measuring point: Top of casing, 2.50 ft (0.76 m) above datum.

REMARKS.--Well obstructed at about 10 ft, measurement discontinued.

PERIOD OF RECORD.--1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.50 ft (1.98 m) below datum, Apr. 14, 1970; lowest measured, 13.52 ft (4.12 m) below datum, Nov. 19, 1949.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	10.52	-	-	-	-	-	-

421920121400001. Local number 37S/10E-29dbb2.

LOCATION.--Lat 42°19'20", long 121°40'00", Hydrologic Unit 18010204.

Owner: Edgewood Ranch. Formerly Don Roberts.

AQUIFER.--Gravel.

WELL CHARACTERISTICS.--Drilled stock well, diam 18 in (460 mm), depth 800 ft (244 m), cased to 20 ft (6.1 m).

DATUM.--Altitude of land surface datum is 4,186 ft (1,276 m). Measuring point: Top of casing, at datum.

PERIOD OF RECORD.--1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.78 ft (6.33 m) below datum, Apr. 17, 1958; lowest measured, 31.24 ft (9.52 m) below datum, July 31, 1969.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	30.14	JAN 27	30.57	APR 28	30.35	JUL 28	28.71

KLAMATH COUNTY--Countinued

421630121392701. Local number 38S/10E-9cbc. Formerly 38S/10E-9ccb.
LOCATION.--Lat 42°16'30", long 121°39'27", Hydrologic Unit 18010204.
Owner: Underwood Ranch.
AQUIFER.--Basalt.
WELL CHARACTERISTICS.--Drilled stock well, diam 6 in (150 mm), depth 135 ft (41 m), cased to 25 ft (8 m).
DATUM.--Altitude of land surface datum is 4,210 ft (1,283 m). Measuring point: Top of casing, 0.70 ft (0.21 m) above datum.
PERIOD OF RECORD.--1949-1972, 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 107.55 ft (32.78 m) below datum; lowest measured, 121.71 ft (37.10 m) below datum, July 28, 1977.

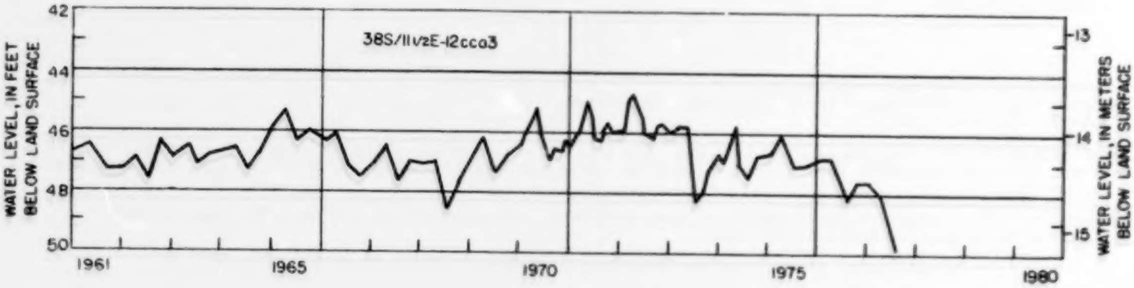
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	115.13	JAN 27	112.18	APR 28	115.33	JUL 28	121.71

421710121285001. Local number 38S/11½E-12cca3.
LOCATION.--Lat 42°17'10", long 121°28'50", Hydrologic Unit 18010204.
Owner: Frank Challis.
AQUIFER.--Red porous lava rock.
WELL CHARACTERISTICS.--Drilled unused well, diam 12 in (300 m), depth 150 ft (46 m), cased to 5 ft (1.5 m).
DATUM.--Altitude of land surface datum is 4,161 ft (1,268 m). Measuring point: Top of casing, at datum.
PERIOD OF RECORD.--1949 to current year, continuous recording gage installed May 12, 1970, removed June 12, 1975.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.02 ft (13.42 m) below datum, Aug. 6, 1958; lowest measured, 49.82 ft (15.19 m) below datum, July 28, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	47.60	JAN 27	47.59	APR 28	48.05	JUL 28	49.82



421605121290501. Local number 38S/11½E-13ccc.
LOCATION.--Lat 42°16'05", long 121°29'05", Hydrologic Unit 18010204.
Owner: Herman Pendegraft.
AQUIFER.--Cinders.
WELL CHARACTERISTICS.--Drilled unused well, diam 20 in (510 mm), depth 600 ft (183 m), cased to 16 ft (4.9 m).
DATUM.--Altitude of land surface datum is 4,152 ft (1,266 m. Measuring point: Top south side of casing, 0.42 ft (0.13 m) above datum.
PERIOD OF RECORD.--1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.54 ft (5.65 m) below datum, Jan. 28, 1965; lowest measured, 29.53 ft (9.00 m) below datum, Oct. 16, 1975.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	24.36	JAN 27	25.05	APR 28	25.96	JUL 28	25.89

KLAMATH COUNTY--Continued

421612121302501. Local number 38S/11½E-15dda.
LOCATION.--Lat 42°16'12", long 121°30'25", Hydrologic Unit 18010204.
Owner: George McCollum.
AQUIFER.--Lava rock and cinders.
WELL CHARACTERISTICS.--Drilled irrigation well, diam 12 in (300 mm), depth 495 ft (151 m).
DATUM.--Altitude of land surface datum is 4,185 ft (1,276 m). Measuring point: Airline hole in pumpbase, 1.05 ft (0.32 m) above datum.
PERIOD OF RECORD.--1948, 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 71.26 ft (21.72 m) below datum, Apr. 24, 1975; lowest measured, 81.55 ft (24.86 m) below datum, July 28, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	78.99	JAN 27	78.83	APR 28	79.38	JUL 28	81.55

421431121340401. Local number 38S/11½E-30dac.
LOCATION.--Lat 42°14'31", long 121°34'04", Hydrologic Unit 18010204.
Owner: George McCollum.
AQUIFER.--Broken lava rock and cinders.
WELL CHARACTERISTICS.--Drilled irrigation well, diam 14 in (350 mm), depth 175 ft (53 m), cased to 120 ft (37 m).
DATUM.--Altitude of land surface datum is 4,217 ft (1,285 m). Measuring point: Top of hole in pumpbase, 1.00 ft (0.30 m) above datum.
PERIOD OF RECORD.--1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 99.94 ft (30.46 m) below datum, Apr. 17, 1958; lowest measured, 117.48 ft (35.81 m) below datum, Oct. 16, 1975.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	107.18	JAN 27	105.73	APR 28	106.44	JUL 28	a

a Well being pumped.

420908121313701. Local number 39S/11½E-28ddd.
LOCATION.--Lat 42°09'08", long 121°31'37", Hydrologic Unit 18010204.
Owner: Lost River Ranch.
AQUIFER.--Diatomite.
WELL CHARACTERISTICS.--Drilled domestic and stock well, diam 6 in (150 mm), depth 460 ft (140 m), cased to 60 ft (18 m).
DATUM.--Altitude of land surface datum is 4,105 ft (1,251 m). Measuring point: Top south side of concrete curb, 0.30 ft (0.09 m) above datum.
PERIOD OF RECORD.--1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.50 ft (1.98 m) below datum, Aug. 25, 1955; lowest measured, 37.16 ft (11.33 mm) below datum, July 24, 1975.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	25.68	JAN 27	28.03	APR 28	b53.06	JUL 28	a

a Well being pumped.
b May be affected by recent pumping.

420919121190201. Local number 39S/12E-29dbc.
LOCATION.--Lat 42°09'19", long 121°19'02", Hydrologic Unit 18010204.
Owner: Robert Vogel.
AQUIFER.--Basalt.
WELL CHARACTERISTICS.--Drilled domestic well, diam 6 in (150 mm), depth 88 ft (27 m).
DATUM.--Altitude of land surface datum is 4,140 ft (1,262 m). Measuring point: Top of casing, at datum.
PERIOD OF RECORD.--1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.34 ft (4.07 m) below datum, July 24, 1957; lowest measured, 25.46 ft (7.76 m) below datum, Feb. 18, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	20.89	JAN 27	b25.70	APR 28	a25.95	JUL 28	16.72

a Well being pumped.
b May be affected by recent pumping.

KLAMATH COUNTY--Continued

420845121150601. Local number 39S/12E-35add.
LOCATION.--Lat 42°08'45", long 121°15'06", Hydrologic Unit 18010204.
Owner: Quentin Steele.
AQUIFER.--Basalt.
WELL CHARACTERISTICS.--Drilled domestic and stock well, diam 6 in (150 mm), depth 360 ft (110 m).
DATUM.--Altitude of land surface datum is 4,180 ft (1,274 m). Measuring point: Top of casing at datum.
PERIOD OF RECORD.--1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.26 ft (10.14 m) below datum, Aug. 5, 1958; lowest measured, 43.42 ft (13.23 m) below datum, May 2, 1961.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	38.99	JAN 27	b46.45	APR 28	42.18	JUL 28	a50.46

a Well being pumped.
b May be affected by recent pumping.

420623121293601. Local number 40S/11E-11bad.
LOCATION.--Lat 42°06'23", long 121°29'36", Hydrologic Unit 18010204.
Owner: A.W. Shaupp.
AQUIFER.--Basalt.
WELL CHARACTERISTICS.--Drilled irrigation and stock well, diam 12 in (300 mm), depth 992 ft (302 m).
DATUM.--Altitude of land surface datum is 4,150 ft (1,265 m). Measuring point: Top of ¼-in (6 mm) hole in pumpbase flange, 0.60 ft (0.18 m) above datum.
PERIOD OF RECORD.--1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.38 ft (2.55 m) below datum, Apr. 7, 1956; lowest measured, 28.83 ft (8.79 m) below datum, July 22, 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	19.36	JAN 27	21.10	APR 28	a	JUL 28	a

a Well being pumped.

420232121241201. Local number 41S/12E-3cba.
LOCATION.--Lat 42°02'32", long 121°24'12", Hydrologic Unit 18010204.
Owner: Al Prescott. Formerly George Rajnus.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled domestic well, diam 4 in (100 mm), depth 76 ft (23 m).
DATUM.--Altitude of land surface datum is 4,110 ft (1,253 m). Top of casing, 0.30 ft (0.09 m) above datum.
PERIOD OF RECORD.--1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.75 ft (0.23 m) below datum, Feb. 18, 1955; lowest measured, 4.56 ft (1.39 m) below datum, July 24, 1968.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	3.24	JAN 26	3.23	APR 27	2.89	JUL 27	3.59

415954121271501. Local number 41S/12E-19dcc.
LOCATION.--Lat 41°59'54", long 121°27'15", Hydrologic Unit 18010204.
Owner: Barney Hoyt. Formerly Jack German.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Dug domestic and stock well, diam unknown, depth about 30 ft (9 m).
DATUM.--Altitude of land surface datum is 4,045 ft (1,233 m). Measuring point: Edge of concrete curb, 1.50 ft (0.46 m) below datum.
PERIOD OF RECORD.--1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.18 ft (0.97 m) below datum, May 3, 1961; lowest measured, 11.67 ft (3.56 m) below datum, June 11, 1960.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	6.20	JAN 26	7.10	APR 27	6.59	JUL 27	5.63

KLAMATH COUNTY--Continued

420124121122801. Local number 41S/14E-8cca.
LOCATION.--Lat 42°01'24", long 121°12'28", Hydrologic Unit 18010204.
Owner: Charles Kilgore.
AQUIFER.--Basalt fragments.
WELL CHARACTERISTICS.--Drilled irrigation well, diam 16 to 12 in (410 to 300 mm), depth 210 ft (64 m), cased to 8 ft (2 m).
DATUM.--Altitude of land surface datum is 4,160 ft (1,268 m). Measuring point: Hole in pumpbase, 1.00 ft (0.30 m) above datum.
PERIOD OF RECORD.--1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.84 ft (4.52 m) below datum, Jan. 28, 1965; lowest measured, 21.12 ft (6.44 m) below datum, Apr. 25, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	17.31	JAN 27	18.78	APR 28	19.19	-	-

LAKE COUNTY

432435121015001. Local number 25S/14E-15bcc.
LOCATION.--Lat 43°24'35", long 121°01'50", Hydrologic Unit 17120005.
Owner: Al Soto. Formerly Ira A. Dutcher.
AQUIFER.--Basalt.
WELL CHARACTERISTICS.--Drilled unused well, diam 18 in (460 mm), depth 220 ft (67 m).
DATUM.--Altitude of land surface datum is about 4,350 ft (1,326 m). Measuring point: Top of casing, at datum.
PERIOD OF RECORD.--1932, 1935-36, 1938 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.88 ft (12.46 m) below datum, Oct. 7, 1974; lowest measured, 52.88 ft (16.18 m) below datum Oct. 22, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 4	43.36	JAN 11	43.24	APR 13	a	JUL 5	a

a Well being pumped.

431536120563901. Local number 27S/15E-4aca1.
LOCATION.--Lat 43°15'36", long 120°56'39", Hydrologic Unit 17120005.
Owner: M.Y. Parks.
AQUIFER.--Basaltic fragments.
WELL CHARACTERISTICS.--Drilled irrigation well, diam 16 in (410 mm), depth 257 ft (78 m), cased to 14 ft (4 m).
DATUM.--Altitude of land surface datum is about 4,335 ft (1,321 m). Measuring point: Top of pumpbase flange, 2.00 ft (0.61 m) above datum.
PERIOD OF RECORD.--1932, 1935-36, 1938 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.30 ft (10.76 m) below datum, May 15, 1975; lowest measured, 37.60 ft (11.46 m) below datum, Aug. 27, 1970, Aug. 20, 1975.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	36.50	JAN 12	36.19	MAR 20	36.20	JUL 6	37.37
NOV 20	36.30	FEB 21	36.91	APR 14	36.49		

431547120380201. Local number 27S/18E-6bcb.
LOCATION.--Lat 43°15'47", long 120°38'02", Hydrologic Unit 17120005.
Owner: Rose T. Morici.
AQUIFER.--Sand.
WELL CHARACTERISTICS.--Drilled unused well, diam 8 in (200 mm), depth 83 ft (25 m), cased to 10 ft (3 m).
DATUM.--Altitude of land surface datum is about 4,317 ft (1,316 m). Measuring point: Top of casing, 0.50 ft (0.15 m) above datum.
PERIOD OF RECORD.--1940 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.94 ft (4.86 m) below datum, Oct. 8, 1974; lowest measured, 25.19 ft (7.68 m) below datum, Apr. 1, 1953.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	16.94	JAN 12	17.60	APR 14	17.72	JUL 5	17.64

LAKE COUNTY--Continued

431320120350001. Local number 27S/18E-21aaa.
LOCATION.--Lat 43°13'20", long 120°35'00", Hydrologic Unit 1712005.
Owner: Chewaucan Land & Cattle Co.
AQUIFER.--Basalt (?).
WELL CHARACTERISTICS.--Drilled abandoned oil-test well, diam 6½ in (165 mm), depth 635 ft (193 m).
DATUM.--Altitude of land surface datum is about 4,330 ft (1,320 m). Measuring point: Top of casing, at datum.
PERIOD OF RECORD.--1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.41 ft (8.05 m) below datum, Apr. 5, 1967; lowest measured, 28.53 ft (8.70 m) below datum, Nov. 6, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	27.95	JAN 12	27.29	APR 14	27.07	JUL 5	27.64

430508119582001. Local number 29S/23E-3dac.
LOCATION.--Lat 43°05'08", long 119°58'20", Hydrologic Unit 17120005.
Owner: U.S. Soil Conservation Service.
AQUIFER.--Basalt (?).
WELL CHARACTERISTICS.--Drilled stock well, diam 8 in (200 mm), depth 177 ft (54 m).
DATUM.--Altitude of land surface datum is about 4,225 ft (1,288 m). Measuring point: Top of casing collar, at datum.
PERIOD OF RECORD.--1945, 1947 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.42 ft (4.395 m) below datum, July 27, 1965; lowest measured, 19.62 ft (5.97 m) below datum, Apr. 23, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	17.83	JAN 25	a	APR 26	17.74	JUL 26	17.80

a Well being pumped.

423250119531501. Local number 35S/24E-9dbd.
LOCATION.--Lat 42°32'45", long 119°53'22", Hydrologic Unit 17120007.
Owner: U.S. Bureau of Land Management.
AQUIFER.--Basalt.
WELL CHARACTERISTICS.--Drilled well, diam 8 in (200 mm), depth 376 ft (115 m), cased to 22 ft (8 m).
DATUM.--Altitude of land surface datum is 4,470 ft (1,362 m).
REMARKS.--Hogback Well on Rabbit Hills SW quadrangle map.
PERIOD OF RECORD.--1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.17 ft (2.19 m) below datum, Feb. 1, 1966; lowest measured, 9.03 ft (2.75 m) below datum, Oct. 23, 1973.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	7.90	JAN 25	7.75	APR 26	7.73	JUL 26	8.53

422900120165201. Local number 36S/21E-6aba.
LOCATION.--Lat 42°29'02", long 120°16'54", Hydrologic Unit 17120006.
Owner: S.V. Carroll.
AQUIFER.--Sand.
WELL CHARACTERISTICS.--Dug unused well, size 8 x 8 ft (2.4 x 2.4 m), depth 21 ft (6 m), uncased.
DATUM.--Land surface datum is 4,321.6 ft (1,317.2 m) above mean sea level. Measuring point: Top of 1-in (25 mm) pipe, 4.50 ft (1.37 m) above datum.
PERIOD OF RECORD.--1938 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.27 ft (2.22 m) below datum, Apr. 11, 1972; lowest measured, 17.21 ft (5.25 m) below datum, Aug. 27, 1938.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	11.56	JAN 25	11.79	APR 26	11.96	JUL 26	12.21

LAKE COUNTY--Continued

422450119541101. Local number 36S/24E-28ccb.
LOCATION.--Lat 42°24'45", long 119°54'11", Hydrologic Unit 17120007.
Owner: Lloyd Grisel.
AQUIFER.--Gravel.
WELL CHARACTERISTICS.--Drilled domestic well, diam 6 in (150 mm), depth 40 ft (12 m).
DATUM.--Altitude of land surface datum is 4,508 ft (1,374 m). Measuring point: 0.50 ft (0.15 m) above datum.
PERIOD OF RECORD.--1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.17 ft (5.23 m) below datum, Apr. 12, 1959; lowest measured, 27.56 ft (8.40 m) below datum, Jan. 11, 1962.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	25.28	JAN 25	25.78	APR 26	23.01	JUL 26	24.47

421445119523001. Local number 38S/24E-27acb.
LOCATION.--Lat 42°14'55", long 119°52'28", Hydrologic Unit 17120007.
Owner: Charles Crump.
AQUIFER.--Gravel.
WELL CHARACTERISTICS.--Drilled unused artesian well, diam 6 in (150 mm), depth 81 ft (25 m), cased to 60 ft (18 m).
DATUM.--Altitude of land surface datum is about 4,495 ft (1,370 m). Measuring point: Top of casing at datum.
PERIOD OF RECORD.--1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, flowing several times, 1952-58, 1963-66, 1969-71, 1973-76; lowest measured, 2.19 ft (0.67 m) below datum, Jan. 15, 1960.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

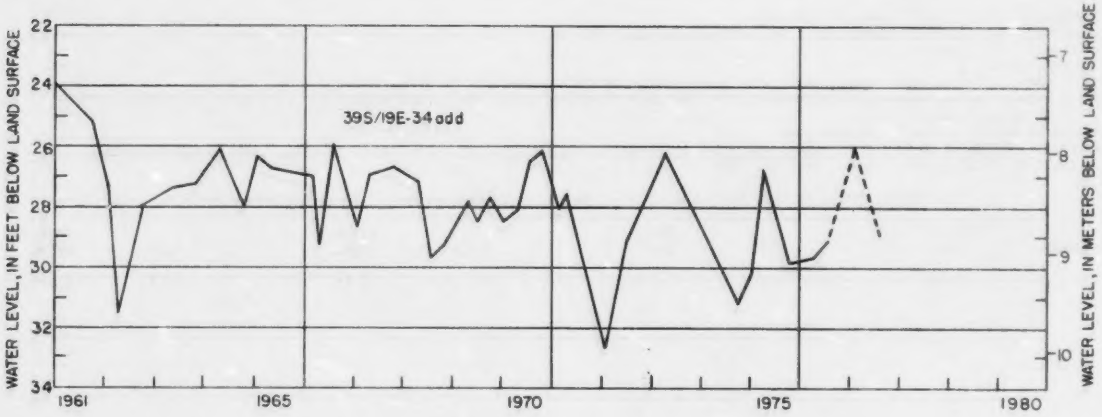
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	0.20	JAN 25	0.07	APR 26	0.10	JUL 26	0.46

420842120271301. Local number 39S/19E-34add.
LOCATION.--Lat 42°08'42", long 120°27'13", Hydrologic Unit 18020001.
Owner: Daryl Jamison. Formerly William Hoffman.
WELL CHARACTERISTICS.--Drilled domestic and stock well, diam 6 in (150 mm), depth 110 ft (34 m), cased to 110 ft (34 m).
DATUM.--Altitude of land surface datum is 4,792 ft (1,461 m). Measuring point: Top of vent pipe, 2.00 ft (0.61 m) above datum.
PERIOD OF RECORD.--1960 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.78 ft (7.25 m) below datum, Oct. 13, 1960; lowest measured, b31.43 ft (9.58 m) below datum, May 1, 1962.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	a31.67	JAN 25	26.01	APR 26	a42.23	JUL 26	b28.94

a Well being pumped.
b May be affected by recent pumping.



LAKE COUNTY--Continued

421032119535802. Local number 39S/24E-21bdb.
LOCATION.--Lat 42°10'34", long 119°53'48", Hydrologic Unit 17120007.
Owner: E.G. & T.M. Sanford. Formerly J.G. Dyke.
AQUIFER.--Gravel.
WELL CHARACTERISTICS.--Drilled domestic well; diam 6 in (150 mm), depth 165 ft (50 m).
DATUM.--Altitude of land surface datum is about 4,580 ft (1,396 m). Measuring point: Top of Casing, 0.50 ft (0.15 m) above datum.
PERIOD OF RECORD.--1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.00 ft (2.74 m) below datum, July 23, 1974; lowest measured, 19.34 ft (5.90 m) below datum, Jan. 15, 1960.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	16.85	JAN 25	19.33	APR 26	17.60	JUL 26	18.28

LANE COUNTY

440803123042601. Local number 16S/3W-32acd.
LOCATION.--Lat 44°08'03", long 123°04'26", Hydrologic Unit 17090004.
Owner: Peter Gutowski.
AQUIFER.--Sand and gravel.
WELL CHARACTERISTICS.--Dug and drilled irrigation well in sand and gravel, diam 8 in (200 mm), depth 40 ft (12 m).
DATUM.--Land-surface datum is 388.98 ft (118.56 m) above mean sea level. Measuring point: Top of casing, 8.00 ft (2.44 m) below datum.
REMARKS.--Continuous water-level recorder installed Feb. 16, 1977.
PERIOD OF RECORD.--1928-30, 1935-36, 1938 to current year. Published every fifth day February 20 to September 20, 1977.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.53 ft (1.99 m) below datum, Jan. 16, 1936; lowest measured, 21.88 ft (6.67 m) below datum, Aug. 15, 1977.

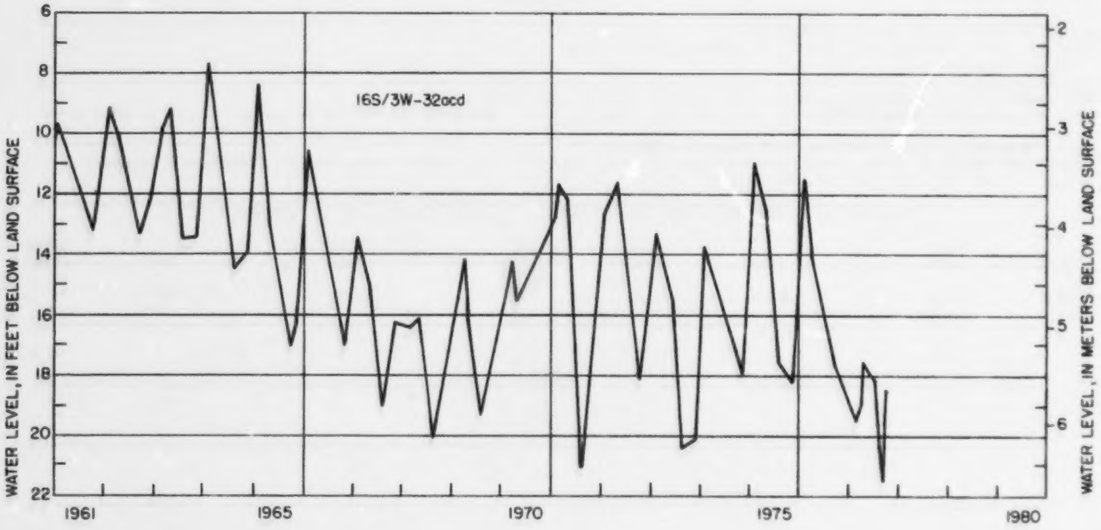
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, OCT. 1, 1976 TO FEB 16, 1977

OCT 1	17.75
JAN 14	19.03
FEB 16	19.49

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR FEBRUARY 1977 TO OCTOBER 1977
MEAN VALUES

DAY	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5		19.38	17.61	17.89	17.84	19.25	21.88	18.99
10		19.20	17.57	17.91	17.87	19.81	21.71	18.69
15		18.90	17.55	17.92	18.15	20.42	21.57	18.48
20	19.54	18.33	17.59	17.89	18.39	21.08	21.40	18.24
25	19.54	18.01	17.71	17.89	18.68	21.28	20.59	-
EOM	19.50	17.75	17.82	17.86	18.98	21.49	19.48	-

WTR YEAR 1977 MAX 17.55 APR 15, 1977 MIN 21.88 AUG 5, 1977

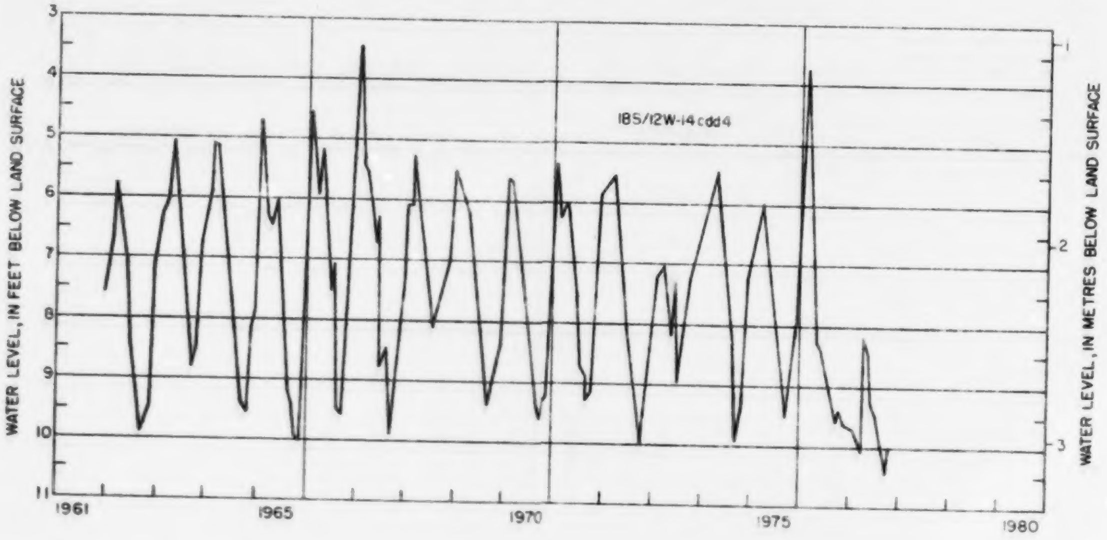


LANE COUNTY--Continued

440000124054004. Local number 18S/12W-14cdd4.
LOCATION.--Lat 44°00'01", long 124°05'40", Hydrologic Unit 17100206.
Owner: U.S. Geological Survey.
AQUIFER.--Sand.
WELL CHARACTERISTICS.--Drilled observation well, diam 6 in (150 mm), depth 59 ft (18 m), cased to 59 ft (18 m), screened 44-59 ft (13-18 m).
DATUM.--Altitude of land surface datum is 70 ft (21 m). Measuring point: Top of casing at datum.
PERIOD OF RECORD.--1960 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.44 ft (1.05 m) below datum, Jan. 31, 1967; lowest measured, 10.40 ft (3.17 m) below datum Aug. 24, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22	9.43	JAN 23	9.77	APR 23	8.44	JUL 22	9.98
NOV 22	9.67	FEB 21	10.05	MAY 23	9.29	AUG 24	10.40
JAN 7	9.80	MAR 24	8.20	JUN 22	9.52	SEP 21	10.09



LINN COUNTY

444300123072501. Local number 10S/4W-12bdd.
LOCATION.--Lat 44°42'58", long 123°07'25", Hydrologic Unit 17090003.
Owner: Henry Hoefer.
AQUIFER.--Gravel.
WELL CHARACTERISTICS.--Drilled domestic well, diam 8 in (200 mm), depth 32 ft (10 m).
DATUM.--Land-surface datum is 185.74 ft (56.61 m) above mean sea level. Measuring point: Top of casing, 3.20 ft (0.98 m) above datum.
PERIOD OF RECORD.--1928-30, 1935-36, 1938 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.62 ft (2.32 m) below datum, Jan. 14, 1936; lowest measured, dry, Aug. 2, Sept. 29, 1972, Oct. 15, 1973.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 6	23.59	APR 6	21.74	JUL 12	25.95	SEP 28	25.57
MAR 8	25.09						

LINN COUNTY--Continued

442140123052501. Local number 14S/3W-7ddc.
LOCATION.--Lat 44°21'40", long 123°05'25", Hydrologic Unit 17090003.
Owner: H.H. Kirk.
AQUIFER.--Gravel.
WELL CHARACTERISTICS.--Drilled irrigation well, diam 8 in (200 m), depth 123 ft (37 m), cased to 110 ft (34 m), perforated 35-110 ft (11-34 m).
DATUM.--Altitude of land surface datum is 288 ft (88 m). Measuring point: 0.55 ft (0.17 m) above datum.
PERIOD OF RECORD.--1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.59 ft (0.79 m) below datum, Apr. 4, 1963; lowest measured, is 13.30 ft (4.05 m) below datum, Oct. 11, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22	11.76	JAN 20	12.11	APR 21	6.58	JUL 20	10.08
NOV 24	12.43	FEB 17	12.50	MAY 20	7.75	AUG 22	11.36
DEC 28	12.03	MAR 22	6.69	JUN 21	8.81	SEP 26	11.88

MALHEUR COUNTY

441710117472301. Local number 15S/40E-2ccb.
LOCATION.--Lat 44°17'11", long 117°47'22", Hydrologic Unit 17050119.
Owner: Rankin Crow.
AQUIFER.--Gravel.
WELL CHARACTERISTICS.--Drilled irrigation well, diam 10 in (250 mm), depth 310 ft (94 m), cased to 170 ft (52 m).
DATUM.--Altitude of land surface datum is about 3,898.3 ft (1,188.2 m). Measuring point: 1.00 ft (0.30 m) above datum.
PERIOD OF RECORD.--1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.06 ft (9.47 m) below datum, Mar. 18, 1951; lowest measured, 57.10 ft (17.40 m) below datum, Nov. 5, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 5	57.10	FEB 3	55.67	MAY 16	a	AUG 4	a

a Well being pumped.

440007117000401. Local number 18S/47E-17bbb.
LOCATION.--Lat 44°00'36", long 117°00'13", Hydrologic Unit 17050115.
Owner: Earl Weaver.
WELL CHARACTERISTICS.--Drilled domestic well, diam 3 in (80 mm), depth 135 ft (41 m), cased to 135 ft (41 m).
DATUM.--Altitude of land surface datum is about 2,180 ft (664 m). Measuring point: Top of casing, 0.95 ft (0.29 m) above datum.
PERIOD OF RECORD.--1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.91 ft (2.11 m) below datum, Sept. 9, 1952; lowest measured, 15.15 ft (4.62 m) below datum, Aug. 31, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	11.58	MAR 3	11.92	MAY 24	12.81	AUG 23	8.43

434450118044001. Local number 21S/38E-17dca.
LOCATION.--Lat 43°44'50", long 118°04'40", Hydrologic Unit 17050116.
Owner: Walter Bodkin.
AQUIFER.--Gravel.
WELL CHARACTERISTICS.--Dug stock well, diam 12 in (300 mm), depth 14 ft (4.2 m) cribbed to bottom.
DATUM.--Altitude of land surface datum is about 2,960 ft (902 m). Measuring point: At land surface datum.
PERIOD OF RECORD.--1945-56, 1958 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.07 ft (0.94 m) below datum, June 23, 1952; lowest measured, 11.33 ft (3.45 m) below datum, Feb. 28, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	7.54	FEB 28	11.33	MAY 23	4.63	AUG 22	5.18

MALHEUR COUNTY--Continued

430730118073001. Local number 28S/37E-23ddd.
LOCATION.--Lat 43°07'30", long 118°07'30", Hydrologic Unit 17050110.
Owner: Earl Obenchain.
AQUIFER.--Gravel.
WELL CHARACTERISTICS.--Dug domestic well, diam 4 ft (1.2 m), depth 30 ft (9 m), cribbed with rock to bottom.
DATUM.--Altitude of land surface datum is about 4,060 ft (1,240 m). Measuring point: Top of south side of concrete casing, 1.85 ft (0.56 m) above datum.
PERIOD OF RECORD.--1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.95 ft (0.59 m) below datum, Mar. 8, 1967; lowest measured, 18.40 ft (5.61 m) below datum, Jan. 22, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 15	9.67	MAR 17	9.55	JUN 29	9.95	SEP 15	14.25

424639117510501. Local number 32S/40E-18acc.
LOCATION.--Lat 42°46'38", long 117°51'03", Hydrologic Unit 17050109.
Owner: Clarence J. Eckstein.
AQUIFER.--Volcanic rock.
WELL CHARACTERISTICS.--Drilled domestic and public-supply well, diam 6 in (150 mm), depth 358 ft (109 m), cased to 160 ft (49 m).
DATUM.--Altitude of land surface datum is about 3,930 ft (1,200 m). Measuring point: Hole in top of casing, 0.70 ft (0.21 m) above datum.
PERIOD OF RECORD.--1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 234.21 ft (71.39 m) below datum, Mar. 1, 1977; lowest measured, 243.89 ft (74.34 m) below datum June 4, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 16	235.25	MAR 1	234.21	MAY 24	234.96	-	-

423527117522501. Local number 34S/39E-13cbc.
LOCATION.--Lat 42°35'27", long 117°52'25", Hydrologic Unit 17050109.
Owner: Civil Aeronautics Administration.
AQUIFER.--Basalt (?).
WELL CHARACTERISTICS.--Drilled observation well, diam 10 in (250 mm), depth 246 ft (75 m).
DATUM.--Altitude of land surface datum is 4,050 ft (1,234 m). Measuring point: Top of casing, at datum.
PERIOD OF RECORD.--1954-56, 1958 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 193.53 ft (58.99 m) below datum, Aug. 19, 1975; lowest measured, 207.20 ft (63.15 m) below datum, Sept. 13, 1961.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 16	194.58	MAR 1	193.87	MAY 24	194.06	AUG 23	193.59

422504117515501. Local number 36S/41E-26dad.
LOCATION.--Lat 42°25'04", long 117°51'55", Hydrologic Unit 17050109.
Owner: U.S. Bureau of Land Management.
AQUIFER.--Basalt (?).
WELL CHARACTERISTICS.--Drilled unused well, diam 8 in (200 mm), depth 222 ft (68 m).
DATUM.--Altitude of land surface datum is 4,200 ft (1,280 m). Measuring point: Top of casing, 1.00 ft (0.30 m) above datum.
PERIOD OF RECORD.--1961 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 194.07 ft (59.15 m) below datum, May 2, 1962; lowest measured, 219.12 ft (66.79 m) below datum, Nov. 16, 1971.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 16	209.89	MAR 1	208.69	MAY 24	212.33	AUG 23	209.13

MALHEUR COUNTY--Continued

420010117431001. Local number 41S/43E-19aa.
LOCATION.--Lat 42°00'10", long 117°43'10", Hydrologic Unit 16040201.
Owner: Victor Albisu.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled domestic well, diam 6 in (150 mm), depth 98 ft (30 m).
DATUM.--Altitude of land surface datum is 4,420 ft (1,347 m). Measuring point: Top of casing, 5.35 ft (1.63 m) below datum.
PERIOD OF RECORD.--1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.23 ft (3.73 m) below datum, Sept. 19, 1972; lowest measured, 32.11 ft (9.79 m) below datum, Aug. 23, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 16	13.94	MAR 1	13.60	MAY 24	16.61	AUG 23	20.23

MARION COUNTY

451232122462301. Local number 4S/1W-23acc.
LOCATION.--Lat 45°12'32", long 122°46'23", Hydrologic Unit 17090009.
Owner: Donald Olmstead.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Dug unused well, diam 4 ft (1.2 m), depth 60 ft (18 m), cribbed with brick to bottom.
DATUM.--Altitude of land surface datum is about 180 ft (55 m). Measuring point: Top of concrete well cover, 0.50 ft (0.15 m) above datum.
PERIOD OF RECORD.--1945 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.78 ft (13.65 m) below datum, June 7, 1961; lowest measured, dry, Oct. 18, 1967, Apr. 16, July 17, Oct. 15, 1968.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	53.47	JAN 18	53.63	MAR 16	54.10	APR 18	54.55

451530122563101. Local number 4S/2W-4bab.
LOCATION.--Lat 45°15'30", long 122°56'31", Hydrologic Unit 17090007.
Owner: Dorety Real Estate. Formerly Dr. C.A. Bump.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Dug domestic well, diam 36 in (910 mm), depth 23 ft (7 m), cribbed with concrete tile to bottom.
DATUM.--Land surface datum is 123.57 ft (37.66 m) above mean sea level. Measuring point: Edge of concrete curb, 1.80 ft (0.55 m) above datum.
PERIOD OF RECORD.--1928-30, 1935-36, 1938 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.60 ft (0.49 m) below datum, Dec. 21, 1955; lowest measured, 19.90 ft (6.07 m) below datum, Dec. 5, 1939.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	15.25	FEB 2	15.97	MAY 4	14.71	AUG 3	16.46

MARION COUNTY--Continued

450620122530501. Local number 5S/2W-25cbd.

LOCATION.--Lat 45°06'20", long 122°52'58", Hydrologic Unit 17090009.
Owner: Agricultural Research Corp. (Sam H. Brown).

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Drilled irrigation well, diam 18 to 6 in (460 to 150 mm), depth 252 ft (77 m), casing perforated 117-147 ft (36-45 m), 215-245 ft (65-75 m).

DATUM.--Land surface datum is 180.31 ft (54.96 m) above mean sea level. Measuring point: Top edge of seal around pump column, 0.65 ft (0.20 m) below datum.

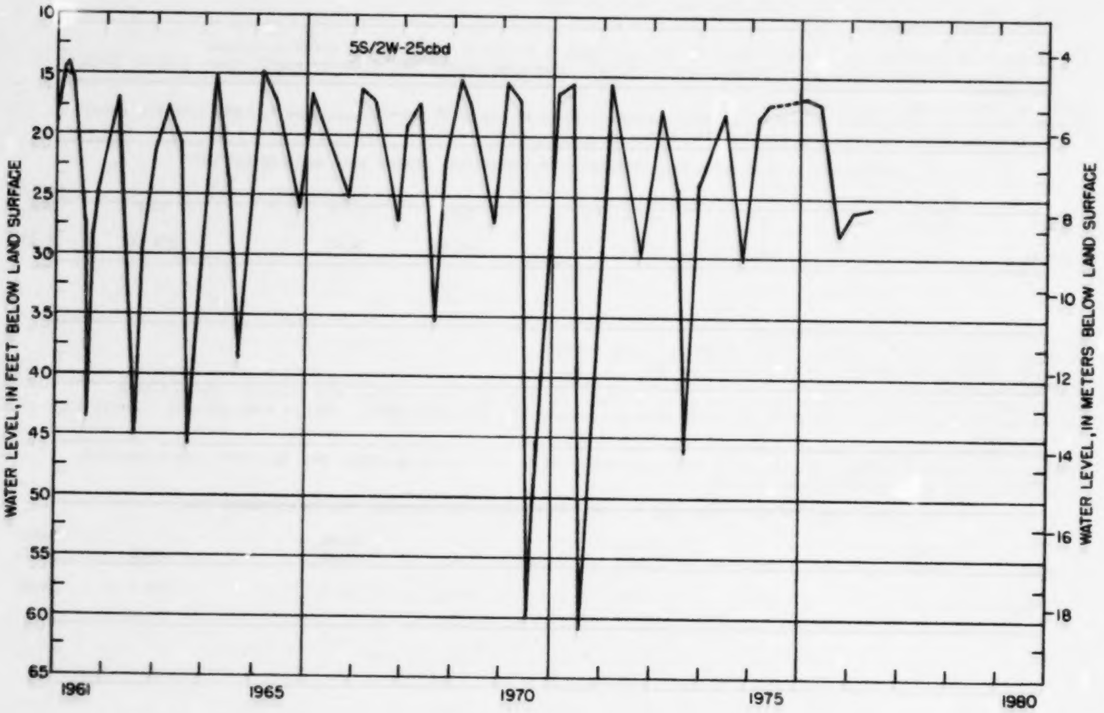
PERIOD OF RECORD.--1929-30, 1935-36, 1938 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.74 ft (4.19 m) below datum, Mar. 11, 1948; lowest measured, b/ 61.03 ft (18.60 m) below datum, Aug. 3, 1971.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	27.98	FEB 2	26.25	MAY 4	25.94	AUG 3	b70.60

b May be affected by recent pumping.



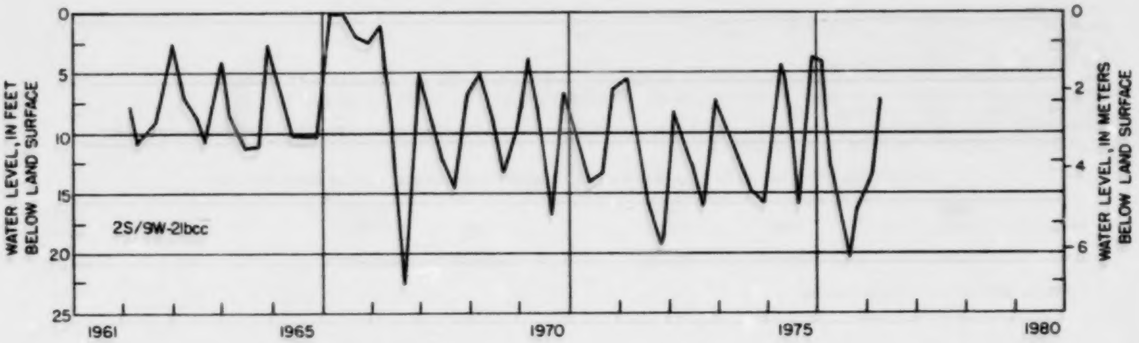
TILLAMOOK COUNTY

452300123481501. Local number 2S/9W-21bcc.
LOCATION.--Lat 45°23'03", long 123°48'08", Hydrologic Unit 17100203.
Owner: Vern Darby.
AQUIFER.--Gravel.
WELL CHARACTERISTICS.--Drilled domestic well, diam 6 in (150 mm), depth 128 ft (39 m).
DATUM.--Altitude of land surface datum is about 120 ft (37 m). Measuring point: Top of casing, at datum.
PERIOD OF RECORD.--1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, flowing, Feb. 21, 1966; lowest measured, 22.89 ft (6.98 m) below below datum, Aug. 2, 1967.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 8	16.10	FEB 25	13.92	MAR 31	7.27	MAY 17	10.71
						AUG 16	b25.26

b May be affected by recent pumping.



UMATILLA COUNTY

453730119042501. Local number 2N/30E-28bdc.
LOCATION.--Lat 45°37'35", long 119°04'25", Hydrologic Unit 17070103.
Owner: Cunningham Sheep Co.
AQUIFER.--Columbia River Basalt Group.
WELL CHARACTERISTICS.--Drilled unused well, diam 6 in (150 mm), depth 81 ft (25 m).
DATUM.--Altitude of land surface datum is 1,440 ft (439 m). Measuring point: Top of casing, 0.40 ft (0.12 m) above datum.
PERIOD OF RECORD.--1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 59.20 ft (18.04 m) below datum, May 11, Aug. 10, 1977; lowest measured, 68.28 ft (20.81 m) below datum, Sept. 19, 1958.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 16	59.21	MAY 11	59.20	AUG 10	59.20	-	-

454639118330901. Local number 3N/34E-3bac.
LOCATION.--Lat 45°46'25", long 118°33'08", Hydrologic Unit 17070103.
Owner: Berkley Davis.
AQUIFER.--Columbia River Basalt Group.
WELL CHARACTERISTICS.--Drilled irrigation well, diam 12 in (300 mm), depth 1,263 ft (385 m), deepened from 298 ft (91 m) in 1972; cased to 60 ft (18 m).
DATUM.--Altitude of land surface datum is 1,544 ft (471 m). Measuring point: Center of air gage, 1.90 ft (0.58 m) above datum.
PERIOD OF RECORD.--1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4 ft (1.5 m) below datum, May 2, 1954; lowest measured, 130.5 ft (39.8 m) below datum, Oct. 27, 1970.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 7	121.5	FEB 17	89.5	MAY 12	a	AUG 11	a

a Well being pumped.

UMATILLA COUNTY--Continued

455120118470501. Local number 4N/32E-2cbb.
LOCATION.--Lat 45°51'20", long 118°46'55", Hydrologic Unit 17070103.
Owner: L.F. King.
AQUIFER.--Columbia River Basalt Group.
WELL CHARACTERISTICS.--Drilled irrigation well, diam 10 in (250 mm), reported depth 527 ft (161 m).
DATUM.--Altitude of land surface datum is 1,650 ft (503 m). Measuring point: Hole in pumpbase, at datum.
PERIOD OF RECORD.--1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11 ft (3 m) below datum, Aug. 26, 1953; lowest measured, b/ 60.85 ft (18.50 m) below datum, Aug. 25, 1959.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 7	14.58	FEB 17	14.53	MAY 12	b71.14	AUG 11	17.13

b May be affected by recent pumping.

455425119182001. Local number 5N/28E-22bba.
LOCATION.--Lat 45°54'25", long 119°18'08", Hydrologic Unit 17070101.
Owner: L.J. Martin.
AQUIFER.--Columbia River Basalt Group.
WELL CHARACTERISTICS.--Drilled domestic well, diam 6 in (150 mm), depth 189 ft (58 m), cased to 8 ft (2.4 m).
DATUM.--Altitude of land surface datum is 440 ft (134 m). Measuring point: Top of casing, at datum.
PERIOD OF RECORD.--1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.39 ft (1.34 m) below datum, Feb. 15, 1965; lowest measured, 23.96 ft (7.30 m) below datum, Aug. 4, 1975.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 4	6.48	FEB 17	b33.03	MAY 12	b79.02	AUG 9	b83.97

b May be affected by recent pumping.

455420118334001. Local number 5N/34E-16ddc.
LOCATION.--Lat 45°54'18", long 118°33'40", Hydrologic Unit 17070102.
Owner: R.M. Thompson.
AQUIFER.--Basalt.
WELL CHARACTERISTICS.--Drilled domestic and stock well, diam 6 in (150 mm), depth 228 ft (69 m).
DATUM.--Altitude of land surface datum is 2,130 ft (649 m). Measuring point: Top of hole in sanitary seal, 0.50 ft (0.15 m) above datum.
PERIOD OF RECORD.--1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 139.91 ft (42.64 m) below datum, Feb. 17, 1977; lowest measured, b/ 162.50 ft (49.53 m) below datum, Nov. 30, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 7	141.44	FEB 17	139.91	MAY 12	140.25	AUG 11	b156.86

b May be affected by recent pumping.

455652118230001. Local number 5N/35E-1bad.
LOCATION.--Lat 45°56'52", long 118°23'00", Hydrologic Unit 17070102.
Owner: W. Bingman.
AQUIFER.--Gravel.
WELL CHARACTERISTICS.--Dug irrigation well, size 6 x 8 ft (1.8 x 2.4 m), depth 37 ft (11 m), curbed with wood.
DATUM.--Land surface datum is 995.60 ft (303.46 m) above mean sea level. Measuring point: At datum.
PERIOD OF RECORD.--1933 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.22 ft (4.03 m) below datum, Dec. 19, 1946; lowest measured, 35.43 ft (10.80 m) below datum, Feb. 16, 1937.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	25.17	JAN 20	23.60	APR 20	24.56	JUL 20	29.11
NOV 22	24.81	FEB 18	23.88	MAY 20	24.30	AUG 24	28.20
DEC 20	24.31	MAR 21	24.75	JUN 20	26.68	SEP 22	27.32

UMATILLA COUNTY--Continued

455650118241501. Local number 5N/35E-2bad.
LOCATION.--Lat 45°56'50", long 118°24'15", Hydrologic Unit 17070102.
Owner: K.A. Townsend.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Dug irrigation well, size 5 x 5 ft (1.5 x 1.5 m), depth 23 ft (7 m), curbed with concrete.
DATUM.--Land surface datum is 975.82 ft (297.43 m) above mean sea level. Measuring point: Top of plank pump support, at datum.
PERIOD OF RECORD.--1933 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.91 ft (3.02 m) below datum, Nov. 28, 1949; lowest measured, dry, several times, 1957-77.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	Dry	JAN 20	Dry	APR 20	Dry	JUL 20	18.64
NOV 22	Dry	FEB 18	Dry	MAY 20	20.45	AUG 24	18.84
DEC 20	Dry	MAR 21	Dry	JUN 20	19.00	SEP 22	Dry

455635118244501. Local number 5N/35E-3add.
LOCATION.--Lat 45°56'35", long 118°24'45", Hydrologic Unit 17070102.
Owner: Van Houten.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Dug and drilled well, dug part 42 x 42 in (1,070 x 1,070 mm), 37 ft (11 m) of concrete cribbing. Drilled and cased to depth of 124 ft (38 m), diameter unknown.
DATUM.--Land surface datum is 958.20 ft (292.06 m) above mean sea level. Measuring point: Top east side of well curb, 0.85 ft (0.26 m) above datum.
PERIOD OF RECORD.--1933 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.53 ft (4.12 m) below datum, Sept. 20, 1961; lowest measured, dry several times, 1952-1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	38.44	JAN 20	Dry	APR 20	32.90	JUL 20	33.72
NOV 22	Dry	FEB 18	Dry	MAY 20	28.65	AUG 24	22.22
DEC 20	Dry	MAR 21	Dry	JUN 20	29.67	SEP 22	35.03

455958118244501. Local number 6N/35E-14cad.
LOCATION.--Lat 45°59'58", long 118°24'45", Hydrologic Unit 17070102.
Owner: H. Miller.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Dug well, diam 7 ft (2.1 m), depth 15 ft (4.6 m), cribbed with concrete to 8 ft (2.4 m).
DATUM.--Land surface datum is 789.76 ft (240.72 m) above mean sea level. Measuring point: Top east side of concrete curb, at datum.
PERIOD OF RECORD.--1933 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.47 ft (1.06 m) below datum, Aug. 8, 1933; lowest measured, dry Apr. 22, 1966, May 27, 1969.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	11.13	JAN 20	12.18	APR 20	14.58	JUL 20	a12.06
NOV 22	11.67	FEB 18	12.09	MAY 20	11.75	AUG 24	14.92
DEC 20	12.12	MAR 21	11.65	JUN 20	a14.13	SEP 22	9.87

a Well being pumped.

UMATILLA COUNTY--Continued

455900118274001. Local number 6N/35E-20aca.
LOCATION.--Lat 45°59'00", long 118°27'40", Hydrologic Unit 17070102.
Owner: J.E. Courtney.
AQUIFER.--Gravel.
WELL CHARACTERISTICS.--Dug and drilled irrigation well, size of dug part 5 x 5 ft (1.5 x 1.5 m), depth 23 ft (7 m), cased with Concrete. Diam, depth, and casing of drilled part unknown.
DATUM.--Land surface datum is 736.32 ft (224.43 m) above mean sea level. Measuring point: Hole in top north side of concrete platform, 0.30 ft (0.09 m) above datum.
PERIOD OF RECORD.--1933 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.08 ft (0.33 m) below datum, July 5, 1933; lowest measured, dry, several times, 1961-75.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	13.12	JAN 20	13.57	APR 20	16.00	JUL 20	a
NOV 22	11.13	FEB 18	14.66	MAY 20	15.38	AUG 24	19.75
DEC 20	11.66	MAR 21	15.48	JUN 20	a	SEP 22	17.95

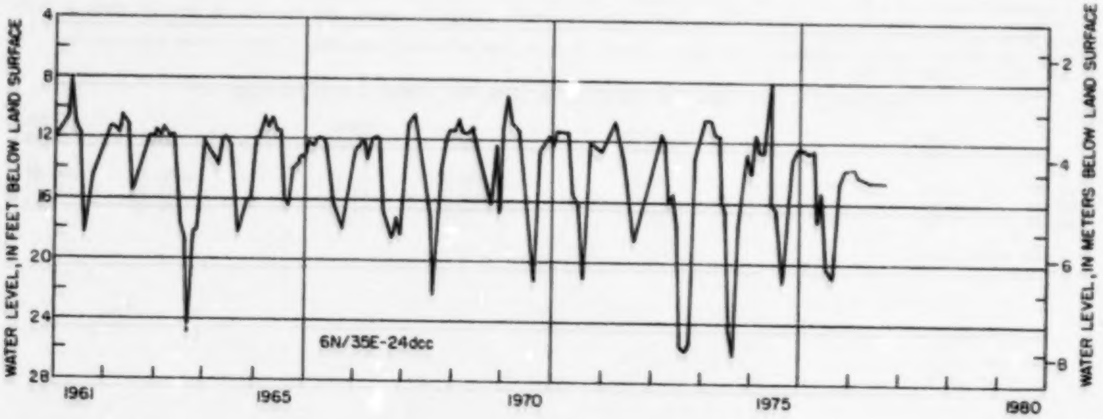
a Well being pumped.

455840118244501. Local number 6N/35E-24dcc.
LOCATION.--Lat 45°58'40", long 118°24'45", Hydrologic Unit 17070102.
Owner: G. Ransom.
AQUIFER.--Gravel.
WELL CHARACTERISTICS.--Dug and drilled irrigation well, size 6 x 6 ft (1.8 x 1.8 m) to 10-in (250 mm) diam, depth 165 ft (50 m), cased to 45 ft (14 m).
DATUM.--Land surface datum is 864.30 ft (263.44 m) above mean sea level. Measuring point: Top of 4- x 6-in (100 x 150 mm) plank on east side of well curb, 0.50 ft (0.15 m) above datum.
PERIOD OF RECORD.--1933 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.65 ft (2.33 m) below datum, July 29, 1948; lowest measured, 26.04 ft (7.94 m) below datum, Aug. 26, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	14.61	JAN 20	13.67	APR 20	a18.07	JUL 20	a23.84
NOV 22	13.84	FEB 18	14.02	MAY 20	14.35	AUG 24	a29.78
DEC 20	13.94	MAR 21	a14.05	JUN 20	a19.87	SEP 22	14.47

a Well being pumped.



UMATILLA COUNTY--Continued

455830118241502. Local number 6N/35E-26bad.
LOCATION.--Lat 45°58'30", long 118°24'15", Hydrologic Unit 17070102.
Owner: Earl Ransom.
AQUIFER.--Gravel.
WELL CHARACTERISTICS.--Dug and drilled irrigation well, size 6 x 6 ft (1.8 x 1.8 m) to 8-in (200 mm) diam, depth 46 ft (14 m), dug part cased with concrete.
DATUM.--Land surface datum is 867.12 ft (264.30 m) above mean sea level. Measuring point: Top of 4- x 4-in (100 x 100 mm) stringer, 0.48 ft (0.15 m) above datum.
PERIOD OF RECORD.--1933 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.81 ft (2.38 m) below datum, May 25, 1939; lowest measured, 31.37 ft (9.56 m) below datum, Feb. 18, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	22.37	JAN 20	30.98	APR 20	a26.37	JUL 20	a26.08
NOV 22	29.29	FEB 18	31.37	MAY 20	17.87	AUG 24	22.77
DEC 20	30.40	MAR 21	30.92	JUN 20	a20.10	SEP 22	16.27

a Well being pumped.

455745118265001. Local number 6N/35E-28ccd.
LOCATION.--Lat 45°57'45", long 118°26'50", Hydrologic Unit 17070102.
Owner: Lottie McKnight Estate.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Dug unused well, size 7 x 7 ft (2.1 x 2.1 m), depth 29 ft (9 m), cribbed with concrete to 16 ft (4.9 m).
DATUM.--Land surface datum is 817.01 ft (249.02 m) above mean sea level. Measuring point: Top north side of concrete curb, at datum.
PERIOD OF RECORD.--1933 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.05 ft (0.62 m) below datum, June 15, 1955; lowest measured, dry, several times 1957-1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	18.13	JAN 20	Dry	APR 20	22.97	JUL 20	21.48
NOV 22	21.95	FEB 18	Dry	MAY 20	15.18	AUG 24	26.10
DEC 20	27.93	MAR 21	26.11	JUN 20	14.97	SEP 22	18.67

455805118293001. Local number 6N/35E-30cbb.
LOCATION.--Lat 45°58'05", long 118°29'30", Hydrologic Unit 17070102.
Owner: Dan Selleck.
AQUIFER.--Gravel.
WELL CHARACTERISTICS.--Dug domestic well, size 5 x 5 ft (1.5 x 1.5 m), depth 30 ft (9 m), cribbed with concrete to 10 ft (3.0 m).
DATUM.--Land surface datum is 687.21 ft (209.46 m) above mean sea level. Measuring point: Top of concrete curb, 0.41 ft (0.12 m) above datum.
PERIOD OF RECORD.--1933 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.10 ft (3.38 m) below datum, June 25, 1946; lowest measured, dry, several times, 1957, 1960-77.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	29.04	JAN 20	Dry	APR 20	27.29	JUL 20	Dry
NOV 22	27.16	FEB 18	-	MAY 20	-	AUG 24	Dry
DEC 20	31.13	MAR 21	26.22	JUN 20	Dry	SEP 22	28.69

UMATILLA COUNTY--Continued

455740118252501. Local number 6N/35E-34baa.
LOCATION.--Lat 45°57'40", long 118°25'25", Hydrologic Unit 17070102.
Owner: Mrs. Jessie Reese.
AQUIFER.--Gravel.
WELL CHARACTERISTICS.--Dug irrigation well, size 8 x 8 ft (2.4 x 2.4 m), depth 54 ft (16 m), cribbed with concrete to 20 ft (6.1 m).
DATUM.--Land surface datum is 881.55 ft (268.70 m) above mean sea level. Measuring point: Top north side of concrete curb, 0.60 ft (0.18 m) above datum.
PERIOD OF RECORD.--1933 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.65 ft (4.16 m) below datum, May 24, 1939; lowest measured, dry, several times, 1955-1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	41.85	JAN 20	Dry	APR 20	39.96	JUL 20	42.30
NOV 22	32.67	FEB 18	Dry	MAY 20	25.92	AUG 24	48.17
DEC 20	Dry	MAR 21	49.20	JUN 20	35.47	SEP 22	37.15

455728118223501. Local number 6N/35E-36add.
LOCATION.--Lat 45°57'28", long 118°22'35", Hydrologic Unit 17070102.
Owner: Walter Hermann.
AQUIFER.--Gravel.
WELL CHARACTERISTICS.--Dug domestic well, size 4 x 4 ft (1.2 x 1.2 m), depth 44 ft (13 m), cribbed with concrete to 18 ft (5 m).
DATUM.--Land surface datum is 929.75 ft (283.39 m) above mean sea level. Measuring point: Zero of nonrecording float gage, top of concrete curb, 2.00 ft (0.61 m) above datum.
PERIOD OF RECORD.--1933 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.88 ft (1.79 m) below datum, June 20, 1933; lowest measured, dry, Mar. 23, 1967.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	-	JAN 20	39.23	APR 20	39.14	JUL 20	30.29
NOV 22	35.38	FEB 18	40.55	MAY 20	-	AUG 24	28.30
DEC 20	37.84	MAR 21	41.68	JUN 20	-	SEP 22	26.45

455730118231501. Local number 6N/35E-36bab.
LOCATION.--Lat 45°57'30", long 118°23'15", Hydrologic Unit 17070102.
Owner: James Busch.
AQUIFER.--Gravel.
WELL CHARACTERISTICS.--Dug irrigation well, size 5 x 5 ft (1.5 x 1.5 m), depth 41 ft (12 m), cribbed with concrete to 25 ft (8 m).
DATUM.--Land surface datum is 925.95 ft (282.23 m) above mean sea level. Measuring point: Top west side of concrete curb, 2.20 ft (0.67 m) above datum.
PERIOD OF RECORD.--1933 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.75 ft (2.67 m) below datum, June 12, 1950; lowest measured, dry several times, 1963-1975.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	32.65	JAN 20	28.72	APR 20	28.99	JUL 20	36.98
NOV 22	29.03	FEB 18	30.01	MAY 20	31.24	AUG 24	39.93
DEC 20	29.92	MAR 21	33.67	JUN 20	36.41	SEP 22	34.39

452015119003201. Local number 3S/30½E-1baa.
LOCATION.--Lat 45°20'25", long 119°00'29", Hydrologic Unit 17070103.
Owner: Joe Pedro.
AQUIFER.--Columbia River Basalt Group.
WELL CHARACTERISTICS.--Drilled unused well, diam 6 in (150 mm), reported depth 99 ft (30 m).
DATUM.--Altitude of land surface datum is 3,180 ft (970 m). Measuring point: Top of steel blocks beneath jet connector, 1.00 ft (0.30 m) below datum.
PERIOD OF RECORD.--1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.01 ft (6.71 m) below datum, Apr. 16, 1968; lowest measured, 39.81 ft (12.13 m) below datum, May 7, 1968.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
-	-	FEB 17	28.33	MAY 12	28.23	AUG 11	28.86

UNION COUNTY

452730117595901. Local number 1S/38E-24ddc.
LOCATION.--Lat 45°27'26", long 117°59'50", Hydrologic Unit 17060104.
Owner: H.L. Wagner.
AQUIFER.--Basalt.
WELL CHARACTERISTICS.--Drilled irrigation well, diam 12 to 8 in (300 to 200 mm), depth 1,150 ft (350 m), cased to bottom.
DATUM.--Altitude of land surface datum is 2,750 ft (838 m). Measuring point: Center line of pressure gage, 6.00 ft (1.83 m) above datum.
PERIOD OF RECORD.--1950-74, 1977.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 107 ft (33 m) above datum, Dec. 30, 1951; lowest measured, 53 ft (16 m) above datum, Aug. 13, 1951.

WATER LEVEL, IN FEET ABOVE LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 5	81.1	FEB 8	81.6	MAY 24	a34.6	AUG 9	58.0

a Well being pumped.

452840117580501. Local number 1S/39E-17cad.
LOCATION.--Lat 45°28'34", long 117°57'48", Hydrologic Unit 17060104.
Owner: A.F. Furman.
AQUIFER.--Sand.
WELL CHARACTERISTICS.--Drilled domestic well, diam 4 in (100 mm), depth 46 ft (14 m).
DATUM.--Altitude of land surface datum is 2,735 ft (834 m). Measuring point: Top of coupling on casing, 1.00 ft (0.30 m) above datum.
PERIOD OF RECORD.--1940 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.40 ft (1.34 m) below datum, Feb. 17, 1965; lowest measured, 19.54 ft (5.96 m) below datum, Aug. 29, 1973.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 5	10.64	FEB 8	10.70	MAY 24	11.03	AUG 9	11.62

452003118055101. Local number 3S/38E-6add.
LOCATION.--Lat 45°20'03", long 118°05'51", Hydrologic Unit 17060104.
Owner: City of La Grande.
AQUIFER.--Basalt.
WELL CHARACTERISTICS.--Drilled municipal well, diam 14 in (350 mm), depth 1,391 ft (424 m).
DATUM.--Altitude of land surface datum is 2,790 ft (850 m). Measuring point: Concrete sidewalk, at datum.
PERIOD OF RECORD.--1957-63, 1965-67, 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 125.9 ft (38.47 m) above datum, Jan. 3, 1962; lowest measured, 13.8 ft (4.21 m) above datum, May 14, 1977.

WATER LEVEL, IN FEET ABOVE LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 9	20.8	MAY 14	13.8	JUL 23	16.2	AUG 9	13.9
APR 4	20.8						

451942118060601. Local number 3S/38E-6dca.
LOCATION.--Lat 45°19'42", long 118°06'06", Hydrologic Unit 17060104.
Owner: Mrs. C.L. Gilstrap.
AQUIFER.--Gravel.
WELL CHARACTERISTICS.--Drilled domestic well, diam 8 in (200 mm), depth 20 ft (6 m), cased to 20 ft (6 m).
DATUM.--Altitude of land surface datum is 2,795 ft (852 m). Measuring point: Top of casing, 2.00 ft (0.61 m) below datum.
PERIOD OF RECORD.--1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.50 ft (5.03 m) below datum, Feb. 18, 1958; lowest measured, 21.86 ft (6.66 m) below datum, Aug. 7, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

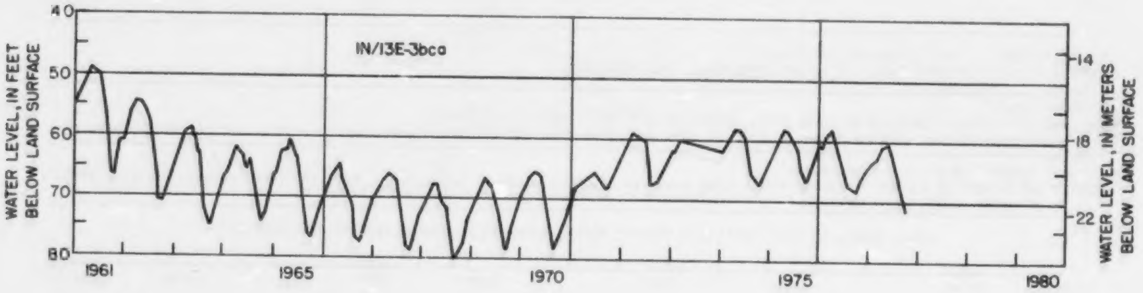
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 5	20.20	FEB 8	20.08	MAY 24	19.70	AUG 9	19.63

WASCO COUNTY

453608121110301. Local number 1N/13E-3bca.
LOCATION.--Lat 45°36'08", long 121°11'03", Hydrologic Unit 17070105.
Owner: City of The Dalles.
AQUIFER.--Basalt.
WELL CHARACTERISTICS.--Drilled municipal well, diam 12 in (300 mm), depth 200 ft (61 m), cased to 62 ft (19 m).
DATUM.--Altitude of land surface datum is 99.5 ft (30.3 m). Measuring point: Hole in pumpbase, 6.40 ft (1.95 m) below datum.
PERIOD OF RECORD.--1926-30, 1960 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.90 ft (5.20 m) below datum, July 19, 1928; lowest measured, 80.63 ft (24.58 m) below datum Aug. 16, 1968.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 4	68.16	JAN 3	63.52	APR 4	60.39	AUG 3	69.29
NOV 3	67.05	FEB 7	62.66	MAY 4	61.88	SEP 2	71.10
DEC 1	65.69	MAR 7	61.08	JUL 1	66.00		



453140121125001. Local number 1N/13E-32acd.
LOCATION.--Lat 45°31'37", long 121°12'50", Hydrologic Unit 17070105.
Owner: Milton Martin.
AQUIFER.--Basalt.
WELL CHARACTERISTICS.--Drilled irrigation well, diam 8 in (200 mm), depth 336 ft (102 m), cased to 44 ft (13 m).
DATUM.--Altitude of land surface datum is about 1,170 ft (357 m). Measuring point: Center line of pressure gage, 1.50 ft (0.46 m) above datum.
PERIOD OF RECORD.--1946 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 186.5 ft (56.8 m) above datum, Apr. 1, 1953; lowest measured, 30.8 ft (9.4 m) above datum, Sept. 14, 1977.

WATER LEVEL, IN FEET ABOVE LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
-	-	MAR 8	a83.0	JUN 2	a41.5	SEP 14	30.8

a Well being pumped.

453715121151701. Local number 2N/12E-25ddc.
LOCATION.--Lat 45°37'15", long 121°15'17", Hydrologic Unit 17070105.
Owner: Ernest A. Kuck.
AQUIFER.--Sandstone of Dalles Formation.
WELL CHARACTERISTICS.--Drilled well, diam 8 in (200 mm), depth 443 ft (135 m), cased to 250 ft (76 m).
DATUM.--Altitude of land surface datum is about 500 ft (152 m). Measuring point: Airline port in pumpbase, 0.80 ft (0.24 m) above datum.
PERIOD OF RECORD.--1947 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 66.20 ft (20.18 m) below datum, May 1, 1955; lowest measured, 151.54 ft (46.19 m) below datum, Aug. 6, 1953.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 30	115.42	MAR 9	109.70	JUN 3	a	SEP 16	139.02

a Well being pumped.

453514122575801. Local number 1N/2W-8bca.
LOCATION.--Lat 45°35'14", long 122°57'58", Hydrologic Unit 17090010.
Owner: T.R. Connell.
AQUIFER.--Valley fill.
WELL CHARACTERISTICS.--Drilled domestic well, diam 6 in (150 mm), reported depth 60 ft (18 m), cased to 60 ft (18 m), perforated 28-60 ft (9-18 m).
DATUM.--Altitude of land surface datum is 200 ft (61 m). Measuring point: Top of casing, 0.40 ft (0.12 m) above datum.
PERIOD OF RECORD.--1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.30 ft (0.01 m) above datum, Dec. 20, 1955; lowest measured, 26.91 ft (8.20 m) below datum, July 15, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	21.86	MAR 18	12.08	APR 21	12.19	JUL 22	18.07
JAN 20	21.07						

453529122535602. Local number 1N/2W-11bab.
LOCATION.--Lat 45°35'27", long 122°54'00", Hydrologic Unit 17090010.
Owner: Albert Zander.
AQUIFER.--Basalt.
WELL CHARACTERISTICS.--Drilled domestic well, diam 6 in (150 mm), depth 125 ft (38 m), cased to 105 ft (32 m).
DATUM.--Altitude of land surface datum is 290 ft (88 m). Measuring point: Top of casing, 1.65 ft (0.50 m) below datum.
PERIOD OF RECORD.--1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.80 ft (17.62 m) below datum, Mar. 17, 1952; lowest measured, 82.93 ft (25.28 m) below datum, July 17, 1975.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	68.12	MAR 17	64.42	APR 21	65.60	JUL 22	72.64
JAN 20	65.85						

453147122543201. Local number 1N/2W-34ada.
LOCATION.--Lat 45°31'47", long 122°54'32", Hydrologic Unit 17090010.
Owner: E.L. Lewis.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Dug domestic well, size 36 x 36 in (910 x 910 mm), depth 23 ft (7 m), cased with concrete to 23 ft (7 m).
DATUM.--Altitude of land surface datum is 200 ft (61 m). Measuring point: Top of 1½-in (38 mm) vent pipe, 0.50 ft (0.15 m) above datum.
PERIOD OF RECORD.--1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.90 ft (0.58 m) below datum, Dec. 20, 1955, Jan. 16, 1961; lowest measured, 19.90 ft (6.07 m) below datum, Sept. 22, 1951.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	17.37	MAR 17	15.47	APR 24	15.24	JUL 22	16.74
JAN 20	17.95						

453349123062001. Local number 1N/3W-19baa.
LOCATION.--Lat 45°33'46", long 123°06'20", Hydrologic Unit 17090010.
Owner: A.J. Giesbers.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Bored domestic well, diam 6 in (150 mm), depth 56 ft (17 m), cased to 54 ft (16 m).
DATUM.--Altitude of land surface datum is 170 ft (52 m). Measuring point: Top of casing, 0.35 ft (0.11 m) above datum.
PERIOD OF RECORD.--1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.79 ft (0.24 m) below datum, Feb. 2, 1967; lowest measured, 12.82 ft (3.91 m) below datum, Nov. 2, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	8.07	MAR 18	3.08	APR 21	3.82	JUL 22	7.00
JAN 20	5.65						

453117122593402. Local number 1N/3W-36ddc.
LOCATION.--Lat 45°31'17", long 122°59'34", Hydrologic Unit 17090010.
Owner: Birdseye Cannery, Hillsboro.
AQUIFER.--Sand and gravel.
WELL CHARACTERISTICS.--Drilled unused well, diam 12 in (300 mm), reported depth 171 ft (52 m).
DATUM.--Altitude of land surface datum is 180 ft (55 m). Measuring point: Top of casing, at datum.
PERIOD OF RECORD.--1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.02 ft (2.14 m) below datum, Jan. 28, 1970; lowest measured, 22.16 ft (6.75 m) below datum, Sept. 22, 1951.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	17.57	JAN 20	17.55	APR 21	16.60	JUL 22	17.80

453050123081001. Local number 1S/4W-2adc.
LOCATION.--Lat 45°30'50", long 123°08'10", Hydrologic Unit 17090010.
Owner: Myron Sheelar.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation well, diam 6 in (150 mm), depth 85 ft (26 m).
DATUM.--altitude of land surface datum is 170 ft (52 m). Measuring point: Top of casing, 0.80 ft (0.24 m) above datum.
PERIOD OF RECORD.--1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.81 ft (2.38 m) below datum, Jan. 13, 1959; lowest measured, 16.94 ft (5.16 m) below datum, Nov. 2, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	14.74	JAN 20	a23.20	APR 21	16.66	JUL 22	16.07

a Well being pumped.

452328122465201. Local number 2S/1W-14ccc.
LOCATION.--Lat 45°23'28", long 122°46'52", Hydrologic Unit 17090010.
Owner: A.J. Martinazzi.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Dug domestic and stock well, diam 36 in (910 mm), depth 51 ft (16 m), cased with concrete tile to 51 ft (16 m).
DATUM.--Altitude of land surface datum is 160 ft (49 m). Measuring point: Inner lip of casing, at datum.
PERIOD OF RECORD.--1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.56 ft (12.67 m) below datum, Feb. 18, 1956; lowest measured, dry, July 8, Sept. 26, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 3	50.55	APR 4	50.18	JUL 8	Dry	SEP 26	Dry
MAR 22	50.21						

WASHINGTON COUNTY--Continued

452600122592201. Local number 2S/2W-6bbb.

LOCATION.--Lat 45°25'58", long 122°59'20", Hydrologic Unit 17090010.
Owner: S.R. Rotchstrom.

AQUIFER.--Columbia River Basalt Group.

WELL CHARACTERISTICS.--Drilled irrigation well, diam 6 in (150 mm), reported depth 486 ft (148 m), cased to 250 ft (76 m).

DATUM.--Altitude of land surface datum is 190 ft (58 m). Measuring point: Hole in south side of pumpbase, 0.60 ft (0.18 m) above datum.

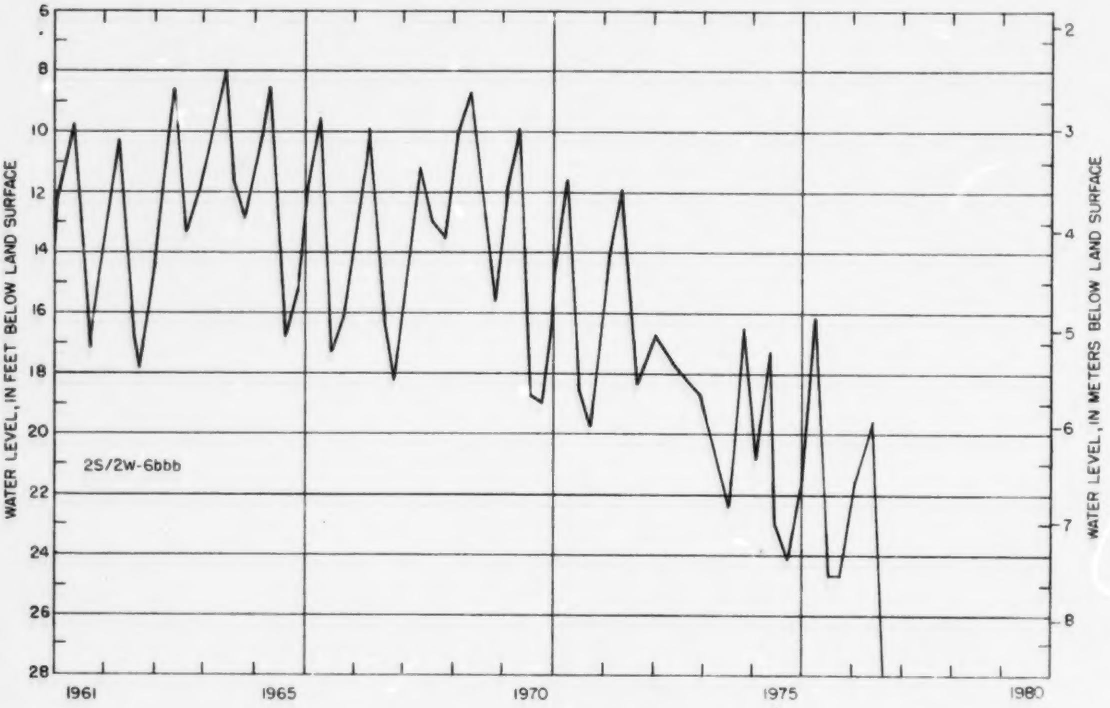
REMARKS.--Hydrograph revised for measurements shown in 1974.

PERIOD OF RECORD.--1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.66 ft (1.42 m) below datum, Mar. 16, 1951; lowest measured, 28.17 ft (8.59 m) below datum, July 20, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	24.80	JAN 19	21.62	MAY 19	19.46	JUL 20	28.17



YAMHILL COUNTY

450829123143801. Local number 5S/5W-13abc.

LOCATION.--Lat 45°08'29", long 123°14'38", Hydrologic Unit 17090008.
Owner: George Fuller.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Drilled domestic and stock well, diam 7 in (180 mm), depth 64 ft (20 m).

DATUM.--Land surface datum is 151.09 ft (46.05 m) above mean sea level. Measuring point: Top of casing, 0.50 ft (0.15 m) above datum.

PERIOD OF RECORD.--1928-30, 1935-36, 1938 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.25 ft (2.52 m) below datum, Apr. 1, 1963; lowest measured, 28.67 ft (8.74 m) below datum, July 8, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 3	22.22	APR 4	16.98	JUL 8	28.67	SEP 26	27.64
MAR 22	21.65						

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FACTORS FOR CONVERTING U.S. CUSTOMARY UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the U.S. customary units published herein to the International System of Units (SI). Subsequent reports will contain both the U.S. customary and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply U.S. customary units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons